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Astrophysics

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Publications:

eXTP: enhanced X-ray Timing and Polarimetry Mission

General information

State: Published

Organisations: National Space Institute, Astrophysics and Atmospheric Physics, Chinese Academy of Sciences, Tsinghua University, Max-Planck-Institute for Extraterrestrial Physics, Tongji University, University of Geneva

Authors: Zhang, S. (Ekstern), Feroci, M. (Ekstern), Santangelo, A. (Ekstern), Dong, Y. (Ekstern), Feng, H. (Ekstern), Lu, F. (Ekstern), Nandra, K. (Ekstern), Wang, Z. (Ekstern), Zhang, S. (Ekstern), Bozzo, E. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern)

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The LOFT mission concept: a status update

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Authors: Feroci, M. (Ekstern), Bozzo, E. (Ekstern), Brandt, S. (Intern), Hernanz, M. (Ekstern), van der Klis, M. (Ekstern), Liu, L. (Ekstern), Orleanski, P. (Ekstern), Pohl, M. (Ekstern), Santangelo, A. (Ekstern), Schanne, S. (Ekstern), Stella, L. (Ekstern), Takahashi, T. (Ekstern), Tamura, H. (Ekstern), Watts, A. (Ekstern), Wilms, J. (Ekstern), Zane, S. (Ekstern), Bhattacharyya, S. (Ekstern), Agudo, I. (Ekstern), Ahangarianabhari, M. (Ekstern), Albertus, C. (Ekstern), Alford, M. (Ekstern), Alpar, A. (Ekstern), Altamirano, D. (Ekstern), Alvarez, L. (Ekstern), Amati, L. (Ekstern), Amoros, C. (Ekstern), Andersson, N. (Ekstern), Antonelli, A. (Ekstern), Argan, A. (Ekstern), Artigue, R. (Ekstern), Artigues, B. (Ekstern), Atteia, J. (Ekstern), Azzarello, P. (Ekstern), Bakala, P. (Ekstern), Ballantyne, D. (Ekstern), Baldazzi, G. (Ekstern), Baldo, M.

(Ekstern), Balman, S. (Ekstern), Barbera, M. (Ekstern), van Baren, C. (Ekstern), Barret, D. (Ekstern), Baykal, A. (Ekstern), Begelman, M. (Ekstern), Behar, O. (Ekstern), Belloni, T. (Ekstern), Bernardini, F. (Ekstern), Bertuccio, G. (Ekstern), Bianchi, S. (Ekstern), Bianchini, A. (Ekstern), Binko, P. (Ekstern), Blay, P. (Ekstern), Bocchino, F. (Ekstern), Bode, M. (Ekstern), Bodin, P. (Ekstern), Bombaci, I. (Ekstern), Bonnet Bidaud, J. (Ekstern), Boutloukos, S. (Ekstern), Bouyjou, F. (Ekstern), Bradley, L. (Ekstern), Braga, J. (Ekstern), Briggs, M. S. (Ekstern), Brown, E. J. (Ekstern), Buballa, M. (Ekstern), Bucciantini, N. (Ekstern), Burderi, L. (Ekstern), Burgay, M. (Ekstern), Bursa, M. (Ekstern), Budtz-Jørgensen, C. (Intern), Cackett, E. (Ekstern), Cadoux, F. (Ekstern), Cais, P. (Ekstern), Caliandro, G. A. (Ekstern), Campana, S. (Ekstern), Cao, X. (Ekstern), Capitanio, F. (Ekstern), Casares, J. (Ekstern), Casella, P. (Ekstern), Castro-Tirado, A. J. (Ekstern), Cavazzuti, E. (Ekstern), Cavechi, Y. (Ekstern), Celestin, S. (Ekstern), Cerda-Duran, P. (Ekstern), Chakrabarty, D. (Ekstern), Chamel, N. (Ekstern), Château, F. (Ekstern), Chen, Y. (Ekstern), Chenevez, J. (Intern), Chernyakova, M. (Ekstern), Coker, J. (Ekstern), Cole, R. (Ekstern), Collura, A. (Ekstern), Coriat, M. (Ekstern), Cornelisse, R. (Ekstern), Costamante, L. (Ekstern), Cros, A. (Ekstern), Cui, W. (Ekstern), Cumming, A. (Ekstern), Cusumano, G. (Ekstern), Czerny, B. (Ekstern), D'Ai, A. (Ekstern), D'Ammando, F. (Ekstern), D'Elia, V. (Ekstern), Dai, Z. (Ekstern), Del Monte, E. (Ekstern), De Luca, A. (Ekstern), De Martino, D. (Ekstern), Dercksen, J. P. C. (Ekstern), De Pasquale, M. (Ekstern), De Rosa, A. (Ekstern), Del Santo, M. (Ekstern), Di Cosimo, S. (Ekstern), Degenaar, N. (Ekstern), den Herder, J. W. (Ekstern), Diebold, S. (Ekstern), Di Salvo, T. (Ekstern), Dong, Y. (Ekstern), Donnarumma, I. (Ekstern), Doroshenko, V. (Ekstern), Doyle, G. (Ekstern), Drake, S. A. (Ekstern), Durant, M. (Ekstern), Emmanoulopoulos, D. (Ekstern), Enoto, T. (Ekstern), Erkut, M. H. (Ekstern), Esposito, P. (Ekstern), Evangelista, Y. (Ekstern), Fabian, A. (Ekstern), Falanga, M. (Ekstern), Favre, Y. (Ekstern), Feldman, C. (Ekstern), Fender, R. (Ekstern), Feng, H. (Ekstern), Ferrari, V. (Ekstern), Ferrigno, C. (Ekstern), Finger, M. H. (Ekstern), Fraser, G. W. (Ekstern), Frericks, M. (Ekstern), Fullekrug, M. (Ekstern), Fuschino, F. (Ekstern), Gabler, M. (Ekstern), Galloway, D. K. (Ekstern), Gálvez Sanchez, J. L. (Ekstern), Gandhi, P. (Ekstern), Gao, Z. (Ekstern), Garcia-Berro, E. (Ekstern), Gendre, B. (Ekstern), Gevin, O. (Ekstern), Gezari, S. (Ekstern), Giles, A. B. (Ekstern), Gilfanov, M. (Ekstern), Giommi, P. (Ekstern), Giovannini, G. (Ekstern), Giroletti, M. (Ekstern), Gogus, E. (Ekstern), Goldwurm, A. (Ekstern), Goluchová, K. (Ekstern), Götz, D. (Ekstern), Gou, L. (Ekstern), Gouiffes, C. (Ekstern), Grandi, P. (Ekstern), Grassi, M. (Ekstern), Greiner, J. (Ekstern), Grinberg, V. (Ekstern), Groot, P. (Ekstern), Gschwender, M. (Ekstern), Gualtieri, L. (Ekstern), Guedel, M. (Ekstern), Guidorzi, C. (Ekstern), Guy, L. (Ekstern), Haas, D. (Ekstern), Haensel, P. (Ekstern), Hailey, M. (Ekstern), Hamuguchi, K. (Ekstern), Hansen, F. (Intern), Hartmann, D. H. (Ekstern), Haswell, C. A. (Ekstern), Hebel, K. (Ekstern), Heger, A. (Ekstern), Hempel, M. (Ekstern), Hermsen, W. (Ekstern), Homan, J. (Ekstern), Hornstrup, A. (Intern), Hudec, R. (Ekstern), Huovelin, J. (Ekstern), Huppenkothen, D. (Ekstern), Inam, S. C. (Ekstern), Ingram, A. (Ekstern), In't Zand, J. J. M. (Ekstern), Israel, G. (Ekstern), Iwasawa, K. (Ekstern), Izzo, L. (Ekstern), Jacobs, H. M. (Ekstern), Jetter, F. (Ekstern), Johannsen, T. (Ekstern), Jenke, P. A. (Ekstern), Jonker, P. (Ekstern), Josè, J. (Ekstern), Kaaret, P. (Ekstern), Kalamkar, K. (Ekstern), Kalemci, E. (Ekstern), Kanbach, G. (Ekstern), Karas, V. (Ekstern), Karelin, D. (Ekstern), Kataria, D. (Ekstern), Keek, L. (Ekstern), Kennedy, T. (Ekstern), Klochkov, D. (Ekstern), Kluzniak, W. (Ekstern), Koerding, E. (Ekstern), Kokkotas, K. (Ekstern), Komossa, S. (Ekstern), Korpela, S. (Ekstern), Kouveliotou, C. (Ekstern), Kowalski, A. F. (Ekstern), Kreykenbohm, I. (Ekstern), Kuiper, L. M. (Ekstern), Kunneriath, D. (Ekstern), Kurkela, A. (Ekstern), Kuvvetli, I. (Intern), La Franca, F. (Ekstern), Labanti, C. (Ekstern), Lai, D. (Ekstern), Lamb, F. K. (Ekstern), Lachaud, C. (Ekstern), Laubert, P. P. (Ekstern), Lebrun, F. (Ekstern), Li, X. (Ekstern), Liang, E. (Ekstern), Limousin, O. (Ekstern), Lin, D. (Ekstern), Linares, M. (Ekstern), Linder, D. (Ekstern), Lodato, G. (Ekstern), Longo, F. (Ekstern), Lu, F. (Ekstern), Lund, N. (Intern), Maccarone, T. J. (Ekstern), Macera, D. (Ekstern), Maestre, S. (Ekstern), Mahmoodifar, S. (Ekstern), Maier, D. (Ekstern), Malcovati, P. (Ekstern), Malzac, J. (Ekstern), Malone, C. (Ekstern), Mandel, I. (Ekstern), Mangano, V. (Ekstern), Manousakis, A. (Ekstern), Marelli, M. (Ekstern), Margueron, J. (Ekstern), Marisaldi, M. (Ekstern), Markoff, S. B. (Ekstern), Markowitz, A. (Ekstern), Marinucci, A. (Ekstern), Martindale, A. (Ekstern), Martínez, G. (Ekstern), McHardy, I. M. (Ekstern), Medina-Tanco, G. (Ekstern), Mehdipour, M. (Ekstern), Melatos, A. (Ekstern), Mendez, M. (Ekstern), Mereghetti, S. (Ekstern), Migliari, S. (Ekstern), Mignani, R. (Ekstern), Michalska, M. (Ekstern), Mihara, T. (Ekstern), Miller, J. M. (Ekstern), Mineo, T. (Ekstern), Miniutti, G. (Ekstern), Morsink, S. (Ekstern), Motch, C. (Ekstern), Motta, S. (Ekstern), Mouchet, M. (Ekstern), Mouret, G. (Ekstern), Mulacova, J. H. (Intern), Muleri, F. (Ekstern), Muñoz-Darias, T. (Ekstern), Negueruela, I. (Ekstern), Neilsen, J. (Ekstern), Neubert, T. (Intern), Norton, A. J. (Ekstern), Nowak, M. (Ekstern), Nucita, A. (Ekstern), O'Brien, P. (Ekstern), Oertel, M. (Ekstern), Olsen, P. E. H. (Intern), Orienti, M. (Ekstern), , Orio, M. (Ekstern), Orlandini, M. (Ekstern), Osborne, J. P. (Ekstern), Osten, R. (Ekstern), Ozel, F. (Ekstern), Pacciani, L. (Ekstern), Paerels, F. (Ekstern), Paltani, S. (Ekstern), Paolillo, M. (Ekstern), Papadakis, I. (Ekstern), Papiitto, A. (Ekstern), Paragi, Z. (Ekstern), Paredes, J. M. (Ekstern), Patruno, A. (Ekstern), Paul, B. (Ekstern), Pederiva, F. (Ekstern), Perinati, E. (Ekstern), Pellizzoni, A. (Ekstern), Penacchioni, A. V. (Ekstern), Peretz, U. (Ekstern), Perez, M. A. (Ekstern), Perez-Torres, M. (Ekstern), Peterson, B. M. (Ekstern), Petracek, V. (Ekstern), Pittori, C. (Ekstern), Pons, J. (Ekstern), Portell, J. (Ekstern), , Possenti, A. (Ekstern), Postnov, K. (Ekstern), Poutanen, J. (Ekstern), Prakash, M. (Ekstern), Prandoni, I. (Ekstern), Le Provost, H. (Ekstern), Psaltis, D. (Ekstern), Pye, J. (Ekstern), Qu, J. (Ekstern), Rambaud, D. (Ekstern), Ramon, P. (Ekstern), Ramsay, G. (Ekstern), Rapisarda, M. (Ekstern), Rashevski, A. (Ekstern), Rashevskaya, I. (Ekstern), Ray, P. S. (Ekstern), Rea, N. (Ekstern), Reddy, S. (Ekstern), Reig, P. (Ekstern), Reina Aranda, M. (Ekstern), Remillard, R. (Ekstern), Reynolds, C. (Ekstern), Rezzolla, L. (Ekstern), Ribo, M. (Ekstern), de la Rie, R. (Ekstern), Riggio, A. (Ekstern), Rios, A. (Ekstern), Rischke, D. H. (Ekstern), Rodríguez-Gil, P. (Ekstern), Rodriguez, J. (Ekstern), Rohlf, R. (Ekstern), Romano, P. (Ekstern), Rossi, E. M. R. (Ekstern), Rozanska, A. (Ekstern), Rousseau, A. (Ekstern), Rudak, B. (Ekstern), Russell, D. M. (Ekstern), Ryde, F. (Ekstern), Sabau-Graziati, L. (Ekstern), Sakamoto, T. (Ekstern), Sala, G. (Ekstern), Salvaterra, R. (Ekstern), Salvetti, D. (Ekstern), Sanna, A. (Ekstern), Sandberg, J. (Ekstern), Savolainen, T. (Ekstern), Scaringi, S. (Ekstern), Schaffner-Bielich, J. (Ekstern), Schatz, H. (Ekstern), Schee, J. (Ekstern), Schmid, C. (Ekstern), Serino, M. (Ekstern), Shakura, N. (Ekstern), Shore, S. (Ekstern), Schnittman, J. D. (Ekstern), Schneider, R. (Ekstern), Schwenk, A. (Ekstern), Schwöpe, A. D. (Ekstern), Sedrakian, A. (Ekstern), Seyler, J. (Ekstern), Shearer, A. (Ekstern), Slowikowska, A. (Ekstern), Sims, M. (Ekstern), Smith, P. J. (Ekstern), Sobolewska, M. (Ekstern), Sochora, V. (Ekstern), Soffitta, P. (Ekstern), Soleri, P. (Ekstern), Song, L. (Ekstern), Spencer, A. (Ekstern), Stamerra, A. (Ekstern), Stappers, B. (Ekstern),

Staubert, R. (Ekstern), Steiner, A. W. (Ekstern), Stergioulas, N. (Ekstern), Stevens, A. L. (Ekstern), Stratta, G. (Ekstern), Strohmayer, T. E. (Ekstern), Stuchlik, Z. (Ekstern), Suchy, S. (Ekstern), Suleimanov, V. (Ekstern), Tamburini, F. (Ekstern), Tauris, T. (Ekstern), Tavecchio, F. (Ekstern), Tenzer, C. (Ekstern), Thielemann, F. K. (Ekstern), Tiengo, A. (Ekstern), Tolos, L. (Ekstern), Tombesi, F. (Ekstern), Tomsick, J. (Ekstern), Torok, G. (Ekstern), Torrejon, J. M. (Ekstern), Torres, D. F. (Ekstern), Torresi, E. (Ekstern), Tramacere, A. (Ekstern), Traulsen, I. (Ekstern), Trois, A. (Ekstern), Turolla, R. (Ekstern), Turriziani, S. (Ekstern), Typel, S. (Ekstern), Uter, P. (Ekstern), Uttley, P. (Ekstern), Vacchi, A. (Ekstern), Varniere, P. (Ekstern), Vaughan, S. (Ekstern), Vercellone, S. (Ekstern), Vietri, M. (Ekstern), Vincent, F. H. (Ekstern), Vrba, V. (Ekstern), Walton, D. (Ekstern), Wang, Z. (Ekstern), Watanabe, S. (Ekstern), Wawrzaszek, R. (Ekstern), Webb, N. (Ekstern), Weinberg, N. (Ekstern), Wende, H. (Ekstern), Wheatley, P. (Ekstern), Wijers, R. (Ekstern), Wijnands, R. (Ekstern), Wille, M. (Ekstern), Wilson-Hodge, C. A. (Ekstern), Winter, B. (Ekstern), Walk, S. J. (Ekstern), Wood, K. (Ekstern), Woosley, S. E. (Ekstern), Wu, X. (Ekstern), Xu, R. (Ekstern), Yu, W. (Ekstern), Yuan, Y. (Ekstern), Zampa, N. (Ekstern), Zampieri, L. (Ekstern), Zdunik, L. (Ekstern), Zdziarski, A. (Ekstern), Zech, A. (Ekstern), Zhang, S. (Ekstern), Zingale, M. (Ekstern), Zwart, F. (Ekstern)

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A new X-ray transient, IGR J17451-3022, discovered by INTEGRAL/JEM-X near the Galactic Centre

The JEM-X twin X-ray monitors on board the INTEGRAL satellite has detected a new X-ray transient during recent observations of the Galactic Centre and Bulge regions. The new source named IGR J17451-3022 has the following coordinates:

R.A. = 266.27

Dec. = -30.38

with a 2arcmin 90% confidence radius.

The source appeared in JEM-X 3-10 keV mosaic images obtained from the observation of the Galactic Bulge region and Galactic Center performed during INTEGRAL revolution 1448 between 2014 August 22 UTC 20:40 and August 24 UTC 07:16. It has since been detected at about the same constant level during subsequent INTEGRAL observations in revolutions 1449 (August 27 UTC 07:51 - August 28 UTC 04:38), 1450 (August 28 UTC 20:09 - August 31 UTC 07:02), and 1451 (August 31 UTC 19:50 - September 3 UTC 03:07). It was not detected during previous observations of the region taken on August 18 and 19 leading to a 3-10 keV flux upper limit of 3 mCrab.

We measure an average flux of 7 ± 1 mCrab with only slight variations between 5 and 8 mCrab during the different above-mentioned observations. The source is not visible above 10 keV, leading to an upper limit of 1 mCrab between 10-25 keV. No significant time variation is seen in the source light-curve.

INTEGRAL will observe the Galactic Center region again between September 6 UTC 19:18 and September 8 UTC 20:31.

A 2-ksec target of opportunity with the Swift satellite has been executed on September 5 between UTC 15:27 and 18:32. The new INTEGRAL source is found with the XRT instrument, only 26 arcsec from the JEM-X position, at the enhanced position:

R.A. = 266.27824

Dec. = -30.37876

with a 90% error confidence of 2.1 arcsec.

Further analysis of the Swift data is on-going. We thank the Swift team for having performed this observation of the new transient source.

Multi-wavelength follow-up observations are encouraged to unveil the nature of IGR J17451-3022.

General information

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Organisations: National Space Institute, Astrophysics, Technical University of Denmark

Authors: Chenevez, J. (Intern), Vandbaek Kroer, L. (Ekstern), Budtz-Jørgensen, C. (Intern), Brandt, S. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Kuulkers, E. (Ekstern), Wilms, J. (Ekstern)
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X-ray, Request for observations, Transient
Links:
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Publication: Research › Journal article – Annual report year: 2014

IGR J17454-2919: a new X-ray transient found by INTEGRAL/JEM-X close to the Galactic Center

The JEM-X twin X-ray monitors on board the INTEGRAL satellite have again detected a new X-ray transient during the latest observation of the Galactic Center region. The new source named IGR J17454-2919 is found less than 24 arcmin from the Galactic Center.

The source appears in both JEM-X 3-10 keV and 10-25 keV independent mosaic images of each monitor, obtained from the observations of the Galactic Bulge region and Galactic Center performed during INTEGRAL revolution 1460 between 2014 September 27 UTC 19:00 - 22:42, and from September 28 UTC 03:40 to September 30 UTC 01:44. It was not detected during any previous recent observations of the region leading to a 3-25 keV flux upper limit of 1 mCrab. The average JEM-X fluxes are 6.5 ± 1 mCrab (3-10 keV) and 8.2 ± 1.7 mCrab (10-25 keV). No significant time variation is seen in the source light-curve.

A Swift follow-up observation of 2 ksec exposure has been executed on October 2 between UTC 17:57 and 19:49. Though a PSF-fitted position cannot be obtained the new INTEGRAL source is clearly visible on the XRT image, only 10 arcsec from the JEM-X position, at:
R.A. = 266.366 equivalent to 17h45m28s
Dec. = -29.332 equivalent to -29d19m55s
with a 90% error confidence of 5 arcsec.
The XRT 0.3-10 keV PC-mode count-rate is 0.64 ± 0.03 cnt/s.
Further analysis of the Swift data is on-going. We thank the Swift team for having performed this observation of the new transient source.

Multi-wavelength follow-up observations are encouraged to unveil the nature of IGR J17454-2919.

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Chenevez, J. (Intern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Vandbaek Kroer, L. (Ekstern), Kuulkers, E. (Ekstern), Wilms, J. (Ekstern)
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X-ray, Transient
Links:
<http://www.astronomerstelegram.org/?read=6530>
Publication: Research › Conference abstract in journal – Annual report year: 2014

INTEGRAL/JEM-X sees enhanced activity in the Galactic center region: SAX J1747.0-2853 and IGR J17454-2919

During INTEGRAL observations of the Galactic Center region performed between 2014 October 18 UTC 16:43 and Oct. 20 UTC 18:36, the JEM-X monitor has detected the transient source and X-ray superburst SAX J1747.0-2853 in a new outburst. The last time this source has been seen in outburst was in February 2012 (see, e.g., ATels #3183 and #3930). The measured fluxes are:
 14 ± 1 mCrab between 3-10 keV and 3.5 ± 2 mCrab between 10-25 keV.

In the same observation the new source IGR J17454-2919 (ATels #6530) and likely black hole candidate (ATel #6574) is

also seen about a factor two brighter compared to previous observations at the following fluxes:
 $10 \pm 1\text{mCrab}$ between 3-10 keV and $15 \pm 2\text{mCrab}$ between 10-25 keV.

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X-ray, Transient

Links:

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The design of the wide field monitor for LOFT

LOFT (Large Observatory For x-ray Timing) is one of the ESA M3 missions selected within the Cosmic Vision program in 2011 to carry out an assessment phase study and compete for a launch opportunity in 2022-2024. The phase-A studies of all M3 missions were completed at the end of 2013. LOFT is designed to carry on-board two instruments with sensitivity in the 2-50 keV range: a 10 m² class Large Area Detector (LAD) with a <1° collimated FoV and a wide field monitor (WFM) making use of coded masks and providing an instantaneous coverage of more than 1/3 of the sky. The prime goal of the WFM will be to detect transient sources to be observed by the LAD. However, thanks to its unique combination of a wide field of view (FoV) and energy resolution (better than 500 eV), the WFM will be also an excellent monitoring instrument to study the long term variability of many classes of X-ray sources. The WFM consists of 10 independent and identical coded mask cameras arranged in 5 pairs to provide the desired sky coverage. We provide here an overview of the instrument design, configuration, and capabilities of the LOFT WFM. The compact and modular design of the WFM could easily make the instrument concept adaptable for other missions.

General information

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Authors: Brandt, S. (Intern), Hernanz, M. (Ekstern), Alvarez, L. (Ekstern), Argan, A. (Ekstern), Artigues, B. (Ekstern), Azzarello, P. (Ekstern), Barret, D. (Ekstern), Bozzo, E. (Ekstern), Budtz-Jørgensen (Ekstern), Campana, R. (Ekstern), Cros, A. (Ekstern), del Monte, E. (Ekstern), Donnarumma, I. (Ekstern), Evangelista, Y. (Ekstern), Feroci, M. (Ekstern), Sanchez, J. L. G. (Ekstern), Götz, D. (Ekstern), Hansen, F. (Ekstern), Herder, J. W. D. (Ekstern), Hudec, R. (Ekstern), Huvelin, J. (Ekstern), Karelín, D. (Ekstern), Korpela, S. (Ekstern), Lund, N. (Intern), Michalska, M. (Ekstern), Olsen, P. (Ekstern), Orleanski, P. (Ekstern), Pedersen, S. (Ekstern), Pohl, M. (Ekstern), Rachevski, A. (Ekstern), Santangelo, A. (Ekstern), Schanne, S. (Ekstern), Schmid, C. (Ekstern), Suchy, S. (Ekstern), Tenzer, C. (Ekstern), Vacchi, A. (Ekstern), Walton, D. (Ekstern), Wilms, J. (Ekstern), Zampa, G. (Ekstern), Zampa, N. (Ekstern), Zand, J. I. (Ekstern), Zane, S. (Ekstern), Zdziarski, A. (Ekstern), Zwart, F. (Ekstern)

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Relations

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The design of the wide field monitor for LOFT

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The Large Observatory For x-ray Timing

The Large Observatory For x-ray Timing (LOFT) was studied within ESA M3 Cosmic Vision framework and participated in the final down-selection for a launch slot in 2022-2024. Thanks to the unprecedented combination of effective area and spectral resolution of its main instrument, LOFT will study the behaviour of matter under extreme conditions, such as the strong gravitational field in the innermost regions of accretion flows close to black holes and neutron stars, and the supra-nuclear densities in the interior of neutron stars. The science payload is based on a Large Area Detector (LAD, 10 m² effective area, 2-30 keV, 240 eV spectral resolution, 1 deg collimated field of view) and a WideField Monitor (WFM, 2-50 keV, 4 steradian field of view, 1 arcmin source location accuracy, 300 eV spectral resolution). The WFM is equipped with an on-board system for bright events (e.g. GRB) localization. The trigger time and position of these events are broadcast to the ground within 30 s from discovery. In this paper we present the status of the mission at the end of its Phase A study.

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Manousakis, A. (Ekstern), Marisaldi, M. (Ekstern), Markowitz, A. (Ekstern), Martindale, A. (Ekstern), Matt, G. (Ekstern), McHardy, I. M. (Ekstern), Melatos, A. (Ekstern), Mendez, M. (Ekstern), Mereghetti, S. (Ekstern), Michalska, M. (Ekstern), Migliari, S. (Ekstern), Mignani, R. (Ekstern), Miller, M. C. (Ekstern), Miller, J. M. (Ekstern), Mineo, T. (Ekstern), Miniutti, G. (Ekstern), Morsink, S. (Ekstern), Motch, C. (Ekstern), Motta, S. (Ekstern), Mouchet, M. (Ekstern), Moutet, G. (Ekstern), Hanis Mulacova, J. (Intern), Muleri, F. (Ekstern), Muñoz-Darias, T. (Ekstern), Negueruela, I. (Ekstern), Neilsen, J. (Ekstern), Norton, A. J. (Ekstern), Nowak, M. (Ekstern), O'Brien, P. (Ekstern), Olsen, P. E. H. (Intern), Orienti, M. (Ekstern), , Orio, M. (Ekstern), Orlandini, M. (Ekstern), Orleanski, P. (Ekstern), Osborne, J. P. (Ekstern), Osten, R. (Ekstern), Ozel, F. (Ekstern), Pacciani, L. (Ekstern), Paolillo, M. (Ekstern), Papitto, A. (Ekstern), Paredes, J. M. (Ekstern), Patruno, A. (Ekstern), Paul, B. (Ekstern), Perinati, E. (Ekstern), Pellizzoni, A. (Ekstern), Penacchioni, A. V. (Ekstern), Perez, M. A. (Ekstern), Petracek, V. (Ekstern), Pittori, C. (Ekstern), Pons, J. (Ekstern), Portell, J. (Ekstern), Possenti, A. (Ekstern), Poutanen, J. (Ekstern), Prakash, M. (Ekstern), Provost, P. L. (Ekstern), Psaltis, D. (Ekstern), Rambaud, D. (Ekstern), Ramon, P. (Ekstern), Ramsay, G. (Ekstern), Rapisarda, M. (Ekstern), Rachevski, A. (Ekstern), Rashevskaya, I. (Ekstern), Ray, P. S. (Ekstern), Rea, N. (Ekstern), Reddy, S. (Ekstern), Reig, P. (Ekstern), Aranda, M. R. (Ekstern), Remillard, R. (Ekstern), Reynolds, C. (Ekstern), Rezzolla, L. (Ekstern), Ribo, M. (Ekstern), de la Rie, R. (Ekstern), Riggio, A. (Ekstern), Rios, A. (Ekstern), Gil, P. R. (Ekstern), Rodriguez, J. (Ekstern), Rohlf, R. (Ekstern), Romano, P. (Ekstern), Rossi, E. M. R. (Ekstern), Rozanska, A. (Ekstern), Rousseau, A. (Ekstern), Ryde, F. (Ekstern), Sabau-Graziati, L. (Ekstern), Sala, G. (Ekstern), Salvaterra, R. (Ekstern), Sanna, A. (Ekstern), Sandberg, J. (Ekstern), Scaringi, S. (Ekstern), Schanne, S. (Ekstern), Schee, J. (Ekstern), Schmid, C. (Ekstern), Shore, S. (Ekstern), Schneider, R. (Ekstern), Schwenk, A. (Ekstern), Schwobe, A. D. (Ekstern), Seyler, J. -. (Ekstern), Shearer, A. (Ekstern), Smith, A. (Ekstern), Smith, D. M. (Ekstern), Smith, P. J. (Ekstern), Sochora, V. (Ekstern), Soffitta, P. (Ekstern), Soleri, P. (Ekstern), Spencer, A. (Ekstern), Stappers, B. (Ekstern), Steiner, A. W. (Ekstern), Stergioulas, N. (Ekstern), Stratta, G. (Ekstern), Strohmayer, T. E. (Ekstern), Stuchlik, Z. (Ekstern), Suchy, S. (Ekstern), Sulemainov, V. (Ekstern), Takahashi, T. (Ekstern), Tamburini, F. (Ekstern), Tauris, T. (Ekstern), Tenzer, C. (Ekstern), Tolos, L. (Ekstern), Tombesi, F. (Ekstern), Tomsick, J. (Ekstern), Torok, G. (Ekstern), Torrejon, J. M. (Ekstern), Torres, D. F. (Ekstern), Tramacere, A. (Ekstern), Trois, A. (Ekstern), Turolla, R. (Ekstern), Turriziani, S. (Ekstern), Uter, P. (Ekstern), Uttley, P. (Ekstern), Vacchi, A. (Ekstern), Varniere, P. (Ekstern), Vaughan, S. (Ekstern), Vercellone, S. (Ekstern), Vrba, V. (Ekstern), Walton, D. (Ekstern), Watanabe, S. (Ekstern), Wawrzaszek, R. (Ekstern), Webb, N. (Ekstern), Weinberg, N. (Ekstern), Wende, H. (Ekstern), Wheatley, P. (Ekstern), Wijers, R. (Ekstern), Wijnands, R. (Ekstern), Wille, M. (Ekstern), Wilson-Hodge, C. A. (Ekstern), Winter, B. (Ekstern), Wood, K. (Ekstern), Zampa, G. (Ekstern), Zampa, N. (Ekstern), Zampieri, L. (Ekstern), Zdunik, L. (Ekstern), Zdziarski, A. (Ekstern), Zhang, B. (Ekstern), Zwart, F. (Ekstern), Ayre, M. (Ekstern), Boenke, T. (Ekstern), van Damme, C. C. (Ekstern), Kuulkers, E. (Ekstern), Lumb, D. (Ekstern)

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BFI (2012): BFI-level 1

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The Large Observatory For x-ray Timing

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The Status of the Ultra Fast Flash Observatory - Pathfinder

The Ultra Fast Flash Observatory (UFFO) is a project to study early optical emissions from Gamma Ray Bursts (GRBs). The primary scientific goal of UFFO is to see if GRBs can be calibrated with their rising times, so that they could be used as new standard candles. In order to minimize delay in optical follow-up measurements, which is now about 100 sec after trigger from the Swift experiment, we rotate a mirror to redirect light path so that optical measurement can be performed within a second after the trigger. We have developed a pathfinder mission, UFFO-pathfinder to launch on board the Lomonosov satellite in 2012. In this talk, I will present scientific motivations and descriptions of the design and development of UFFO-pathfinder. © 2013 Elsevier B.V.

General information

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Background simulations for the Large Area Detector onboard LOFT

The Large Observatory For X-ray Timing (LOFT), currently in an assessment phase in the framework the ESA M3 Cosmic Vision programme, is an innovative medium-class mission specifically designed to answer fundamental questions about the behaviour of matter, in the very strong gravitational and magnetic fields around compact objects and in supranuclear density conditions. Having an effective area of similar to 10 m² at 8 keV, LOFT will be able to measure with high sensitivity very fast variability in the X-ray fluxes and spectra. A good knowledge of the in-orbit background environment is essential to assess the scientific performance of the mission and optimize the design of its main instrument, the Large Area Detector (LAD). In this paper the results of an extensive Geant-4 simulation of the instrument will be discussed, showing the main contributions to the background and the design solutions for its reduction and control. Our results show that the current LOFT/LAD design is expected to meet its scientific requirement of a background rate equivalent to 10 mCrab in 2aEuro'30 keV, achieving about 5 mCrab in the most important 2-10 keV energy band. Moreover, simulations show an anticipated modulation of the background rate as small as 10 % over the orbital timescale. The intrinsic photonic origin of the largest background component also allows for an efficient modelling, supported by an in-flight active monitoring, allowing to predict systematic residuals significantly better than the requirement of 1 %, and actually meeting the 0.25 % science goal.

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Authors: Campana, R. (Ekstern), Feroci, M. (Ekstern), Ettore, D. M. (Ekstern), Mineo, T. (Ekstern), Lund, N. (Intern), Fraser, G. W. (Ekstern)

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Scopus rating (2015): CiteScore 2.3

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 2.26

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 2.28

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 1.8

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 1.92

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Web of Science (2008): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2001): Indexed yes

Original language: English

ASTRONOMY, PROPORTIONAL COUNTER ARRAY, MONTE-CARLO SIMULATIONS, EARTH'S ATMOSPHERE, ENERGY-SPECTRUM, RAY EMISSIVITY, GAMMA-RAYS, MODEL, PROTON, CALIBRATION, SPACECRAFT, X-ray astronomy, Instrumental background, Montecarlo simulations, COSMIC rays, HASH(0x4b360c0)

DOIs:

10.1007/s10686-013-9341-6

Relations

Projects:

Background simulations for the Large Area Detector onboard LOFT

Source: FindIt

Source-ID: 256093816

Publication: Research - peer-review › Journal article – Annual report year: 2014

Calibration and Simulation of the GRB trigger detector of the Ultra Fast Flash Observatory

The UFFO (Ultra-Fast Flash Observatory) is a GRB detector on board the Lomonosov satellite, to be launched in 2013. The GRB trigger is provided by an X-ray detector, called UBAT (UFFO Burst Alarm & Trigger Telescope), which detects X-rays from the GRB and then triggers to determine the direction of the GRB and then alerts the Slewing Mirror Telescope (SMT) to turn in the direction of the GRB and record the optical photon fluxes. This report details the calibration of the two components: the MAPMTs and the YSO crystals and simulations of the UBAT. The results shows that this design can

observe a GRB within a field of view of $\pm 35^\circ$ and can trigger in a time scale as short as 0.2 – 1.0 s after the appearance of a GRB X-ray spike.

General information

State: Published

Organisations: National Space Institute, Astrophysics, National United University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Space Organization, National Taiwan University, Korea Institute of Industrial Technology, Korea Advanced Institute of Science & Technology, University of Valencia, Ewha Womans University, Sungkyunkwan University, Yonsei University, Moscow State University

Authors: Huang, M. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chang, S. (Ekstern), Chang, Y. (Ekstern), Chen, C. (Ekstern), Chen, P. (Ekstern), Choi, H. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, J. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Kim, Y. (Ekstern), Krasnov, A. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Lin, C. (Ekstern), Linder, E. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. (Ekstern), Na, G. (Ekstern), Nam, J. (Ekstern), Panasyuk, M. (Ekstern), Park, I. (Ekstern), Reglero, V. (Ekstern), Řípa, J. (Ekstern), Rodrigo, J. (Ekstern), Smoot, G. (Ekstern), Suh, J. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), I. Yashin, A. (Ekstern)

Pages: 531-535

Publication date: 2013

Main Research Area: Technical/natural sciences

Publication information

Journal: E A S Publications Series

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Ratings:

Scopus rating (2016): SJR 0.208 SNIP 0.161 CiteScore 0.25

Scopus rating (2015): SJR 0.18 SNIP 0.107 CiteScore 0.13

Scopus rating (2014): SJR 0.193 SNIP 0.104 CiteScore 0.18

Scopus rating (2013): SJR 0.204 SNIP 0.095 CiteScore 0.2

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): SJR 0.228 SNIP 0.157 CiteScore 0.26

ISI indexed (2012): ISI indexed no

Scopus rating (2011): SJR 0.195 SNIP 0.087 CiteScore 0.18

ISI indexed (2011): ISI indexed no

Scopus rating (2010): SJR 0.201 SNIP 0.139

Scopus rating (2009): SJR 0.163 SNIP 0.065

Scopus rating (2008): SJR 0.193 SNIP 0.183

Scopus rating (2007): SJR 0.136 SNIP 0.07

Scopus rating (2006): SJR 0.165 SNIP 0.176

Scopus rating (2005): SJR 0.171 SNIP 0.104

Original language: English

Electronic versions:

GRB_EAS_S1633476061000866a.pdf

DOIs:

10.1051/eas/1361086

Relations

Activities:

The Fall 2012 Gamma-Ray Burst Symposium (External organisation)

Projects:

Calibration and Simulation of the GRB trigger detector of the Ultra Fast Flash Observatory

Source: dtu

Source-ID: u::8142

Publication: Research - peer-review › Journal article – Annual report year: 2013

Design and implementation of electronics and data acquisition system for Ultra-Fast Flash Observatory

The Ultra-Fast Flash Observatory (UFFO) Pathfinder for Gamma-Ray Bursts (GRBs) consists of two telescopes. The UFFO Burst Alert & Trigger Telescope (UBAT) handles the detection and localization of GRBs, and the Slewing Mirror Telescope (SMT) conducts the measurement of the UV/optical afterglow. UBAT is equipped with an X-ray detector, analog and digital signal readout electronics that detects X-rays from GRBs and determines the location. SMT is equipped with a

stepping motor and the associated electronics to rotate the slewing mirror targeting the GRBs identified by UBAT. First the slewing mirror points to a GRB, then SMT obtains the optical image of the GRB using the intensified CCD and its readout electronics. The UFFO Data Acquisition system (UDAQ) is responsible for the overall function and operation of the observatory and the communication with the satellite main processor. In this paper we present the design and implementation of the electronics of UBAT and SMT as well as the architecture and implementation of UDAQ.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Sungkyunkwan University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Space Organization, National Taiwan University, Korea Institute of Industrial Technology, Korea Advanced Institute of Science & Technology, University of Valencia, University of California at Berkeley, National United University, Moscow State University, Ewha Womans University, Yonsei University

Authors: Jung, A. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chang, S. (Ekstern), Chang, Y. (Ekstern), Chen, C. (Ekstern), Chen, P. (Ekstern), Choi, H. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, J. (Ekstern), Huang, M. (Ekstern), Jeong, S. (Ekstern), Kim, J. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Kim, Y. (Ekstern), Krasnov, A. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Lin, C. (Ekstern), Linder, E. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Nam, J. (Ekstern), Min, K. (Ekstern), Na, G. (Ekstern), Panasyuk, M. (Ekstern), Park, I. (Ekstern), Reglero, V. (Ekstern), Ripa, J. (Ekstern), Rodrigo, J. (Ekstern), F. Smoot, G. (Ekstern), Suh, J. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

Pages: 567-571

Publication date: 2013

Main Research Area: Technical/natural sciences

Publication information

Journal: E A S Publications Series

Volume: 61

ISSN (Print): 1633-4760

Ratings:

Scopus rating (2016): SJR 0.208 SNIP 0.161 CiteScore 0.25

Scopus rating (2015): SJR 0.18 SNIP 0.107 CiteScore 0.13

Scopus rating (2014): SJR 0.193 SNIP 0.104 CiteScore 0.18

Scopus rating (2013): SJR 0.204 SNIP 0.095 CiteScore 0.2

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): SJR 0.228 SNIP 0.157 CiteScore 0.26

ISI indexed (2012): ISI indexed no

Scopus rating (2011): SJR 0.195 SNIP 0.087 CiteScore 0.18

ISI indexed (2011): ISI indexed no

Scopus rating (2010): SJR 0.201 SNIP 0.139

Scopus rating (2009): SJR 0.163 SNIP 0.065

Scopus rating (2008): SJR 0.193 SNIP 0.183

Scopus rating (2007): SJR 0.136 SNIP 0.07

Scopus rating (2006): SJR 0.165 SNIP 0.176

Scopus rating (2005): SJR 0.171 SNIP 0.104

Original language: English

Electronic versions:

GRB_EAS_S163347606100091Xa.pdf

DOIs:

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Relations

Activities:

The Fall 2012 Gamma-Ray Burst Symposium (External organisation)

Projects:

Design and implementation of electronics and data acquisition system for Ultra-Fast Flash Observatory

Source: dtu

Source-ID: u::8145

Publication: Research - peer-review › Journal article – Annual report year: 2013

Development of Motorized Slewing Mirror Stage for the UFFO Project

The Ultra-Fast Flash Observatory (UFFO) is a space observatory for optical follow-ups of gamma ray bursts (GRBs), aiming to explore the first 60 seconds of GRBs optical emission. UFFO is utilized to catch early optical emissions from GRBs within few sec after trigger using a Gimbal mirror which redirects the optical path rather than slewing entire spacecraft. We have developed a 15 cm two-axis Gimbal mirror stage for the UFFO-Pathfinder which is going to be on board the Lomonosov satellite which is to be launched in 2013. The stage is designed for fast and accurate motion with given budgets of 3 kg of mass and 3 Watt of power. By employing stepping motors, the slewing mirror can rotate faster than 15 deg/sec so that objects in the UFFO coverage (60 deg × 60 deg) can be targeted in ~1 sec. The obtained targeting resolution is better 2 arcmin using a close-loop control with high precision rotary encoder. In this presentation, we will discuss details of design, manufacturing, space qualification tests, as well as performance tests.

General information

State: Published

Organisations: National Space Institute, Astrophysics, UFFO Collaboration, National Taiwan University, Ewha Womans University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Space Organization, Korea Institute of Industrial Technology, Korea Advanced Institute of Science & Technology, University of Valencia, National United University, Sungkyunkwan University, Moscow State University, Yonsei University

Authors: Nam, J. (Ekstern), Ahn, K. (Ekstern), Cho, M. (Ekstern), Jeong, S. (Ekstern), Kim, J. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chang, C. (Ekstern), Chang, C. (Ekstern), Chang, Y. (Ekstern), Chen, C. (Ekstern), Chen, P. (Ekstern), Choi, H. (Ekstern), Choi, Y. (Ekstern), Connel, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, J. (Ekstern), Huang, M. (Ekstern), Jung, A. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Kim, Y. (Ekstern), Krasnov, A. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. (Ekstern), Na, G. (Ekstern), Panasyuk, M. (Ekstern), Park, I. (Ekstern), Reglero, V. (Ekstern), Ripa, J. (Ekstern), Rodrigo, J. (Ekstern), Smoot, G. (Ekstern), Suh, J. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

Pages: 573-577

Publication date: 2013

Main Research Area: Technical/natural sciences

Publication information

Journal: E A S Publications Series

Volume: 61

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Ratings:

Scopus rating (2016): SJR 0.208 SNIP 0.161 CiteScore 0.25

Scopus rating (2015): SJR 0.18 SNIP 0.107 CiteScore 0.13

Scopus rating (2014): SJR 0.193 SNIP 0.104 CiteScore 0.18

Scopus rating (2013): SJR 0.204 SNIP 0.095 CiteScore 0.2

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): SJR 0.228 SNIP 0.157 CiteScore 0.26

ISI indexed (2012): ISI indexed no

Scopus rating (2011): SJR 0.195 SNIP 0.087 CiteScore 0.18

ISI indexed (2011): ISI indexed no

Scopus rating (2010): SJR 0.201 SNIP 0.139

Scopus rating (2009): SJR 0.163 SNIP 0.065

Scopus rating (2008): SJR 0.193 SNIP 0.183

Scopus rating (2007): SJR 0.136 SNIP 0.07

Scopus rating (2006): SJR 0.165 SNIP 0.176

Scopus rating (2005): SJR 0.171 SNIP 0.104

Original language: English

Electronic versions:

GRB_EAS_S1633476061000921a.pdf

DOIs:

10.1051/eas/1361092

Relations

Activities:

The Fall 2012 Gamma-Ray Burst Symposium (External organisation)

Projects:

Development of Motorized Slewing Mirror Stage for the UFFO Project

Source: dtu
Source-ID: u::8146
Publication: Research - peer-review › Journal article – Annual report year: 2013

Early danish GRB experiments - And some for the future?

By 1975 the hunt for GRB counterparts had been on for almost ten years without success. Gamma burst instruments of that day provided little or no directional data in themselves. Positions could be extracted only using the time delay technique - potentially accurate but very slow. Triggered by a japanese report of a balloon instrument for GRB studies based on a Rotation Modulation Collimator we at the Danish Space Research Institute started the development of an RMC detector for GRBs, the WATCH wide field monitor. Four WATCH units were flown on the Soviet Granat satellites, and one on ESA's EURECA satellite. The design and results will be summarized. Now, 35 years later, recent detector developments may allow the construction of WATCH-type instruments able to fit weight, power and data-wise into 1 kg cubesats. This could provide the basis for a true all-sky monitor with 100 percent duty cycle for rare, bright events. © EAS, EDP Sciences 2013.

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Lund, N. (Intern)
Pages: 15-25
Publication date: 2013

Host publication information

Title of host publication: Gamma-ray Bursts: 15 Years of GRB Afterglows
Publisher: EDP Sciences
Editors: Castro-Tirado, A. J., Gorosabel, J., Park, I. H.

Series: E A S Publications Series

Number: 61

ISSN: 1633-4760

Main Research Area: Technical/natural sciences

Gamma rays, Instruments, Stars, Watches

DOIs:

10.1051/eas/1361002

Source: dtu

Source-ID: n::oai:DTIC-ART:compendex/425716874::34129

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

In-Flight Calibrations of UFFO-Pathfinder

The Ultra-Fast Flash Observatory (UFFO), which will be launched onboard the Lomonosov spacecraft, contains two crucial instruments: UFFO Burst Alert & Trigger Telescope (UBAT) for detection and localization of Gamma-Ray Bursts (GRBs) and the fast-response Slewing Mirror Telescope (SMT) designed for the observation of the prompt optical/UV counterparts. Here we discuss the in-space calibrations of the UBAT detector and SMT telescope. After the launch, the observations of the standard X-ray sources such as pulsar in Crab nebula will provide data for necessary calibrations of UBAT. Several standard stars will be used for the photometric calibration of SMT. The celestial X-ray sources, e.g. X-ray binaries with bright optical sources in their close angular vicinity will serve for the cross-calibration of UBAT and SMT.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Sungkyunkwan University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Space Organization, National Taiwan University, Korea Institute of Industrial Technology, Korea Advanced Institute of Science & Technology, University of Valencia, Ewha Womans University, National United University, Moscow State University, Yonsei University

Authors: Řípa, J. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chang, S. (Ekstern), Chang, Y. (Ekstern), Chen, C. (Ekstern), Chen, P. (Ekstern), Choi, H. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, J. (Ekstern), Huang, M. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Kim, Y. (Ekstern), Krasnov, A. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Lin, C. (Ekstern), Linder, E. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. (Ekstern), Na, G. (Ekstern), Nam, J. (Ekstern), Panasyuk, M. (Ekstern), Park, I. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. (Ekstern), Smoot, G. (Ekstern), Suh, J. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

Pages: 579-581

Publication date: 2013

Main Research Area: Technical/natural sciences

Publication information

Journal: E A S Publications Series

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Scopus rating (2016): SJR 0.208 SNIP 0.161 CiteScore 0.25

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Scopus rating (2014): SJR 0.193 SNIP 0.104 CiteScore 0.18

Scopus rating (2013): SJR 0.204 SNIP 0.095 CiteScore 0.2

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): SJR 0.228 SNIP 0.157 CiteScore 0.26

ISI indexed (2012): ISI indexed no

Scopus rating (2011): SJR 0.195 SNIP 0.087 CiteScore 0.18

ISI indexed (2011): ISI indexed no

Scopus rating (2010): SJR 0.201 SNIP 0.139

Scopus rating (2009): SJR 0.163 SNIP 0.065

Scopus rating (2008): SJR 0.193 SNIP 0.183

Scopus rating (2007): SJR 0.136 SNIP 0.07

Scopus rating (2006): SJR 0.165 SNIP 0.176

Scopus rating (2005): SJR 0.171 SNIP 0.104

Original language: English

Electronic versions:

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DOIs:

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Relations

Activities:

The Fall 2012 Gamma-Ray Burst Symposium (External organisation)

Projects:

In-Flight Calibrations of UFFO-Pathfinder

Source: dtu

Source-ID: u::8147

Publication: Research - peer-review › Journal article – Annual report year: 2013

Observing GRBs with the LOFT Wide Field Monitor

LOFT (Large Observatory For X-ray Timing) is one of the four candidate missions currently under assessment study for the M3 mission in ESA's Cosmic Vision program to be launched in 2024. LOFT will carry two instruments with prime sensitivity in the 2–30 keV range: a 10 m² class large area detector (LAD) with a <1° collimated field of view and a wide field monitor (WFM) instrument. The WFM is based on the coded mask principle, and 5 camera units will provide coverage of more than 1/3 of the sky. The prime goal of the WFM is to detect transient sources to be observed by the LAD. With its wide field of view and good energy resolution of <500 eV, the WFM will be an excellent instrument for detecting and studying GRBs and X-ray flashes. The WFM will be able to detect ~150 gamma ray bursts per year, and a burst alert system will enable the distribution of ~100 GRB positions per year with a ~1 arcmin location accuracy within 30 s of the burst.

General information

State: Published

Organisations: National Space Institute, Astrophysics, IT-Department, Institute of Space Sciences, National Institute for Astrophysics, University of Geneva, IRAP, Instituto de Astrofísica de Andalucía, Commissariat Energie Atomique, SRON, Academy of Sciences of the Czech Republic, University of Amsterdam, Space Research Centre, Istituto Nazionale di Fisica Nucleare, University of Tübingen, Friedrich-Alexander-University of Erlangen-Nürnberg, Copernicus Astronomical Center, University of Helsinki

Authors: Brandt, S. (Intern), Hernanz, M. (Ekstern), Feroci, M. (Ekstern), Amati, L. (Ekstern), Alvarez (Ekstern), Azzarello, P. (Ekstern), Barret, D. (Ekstern), Bozzo, E. (Ekstern), Budtz-Jørgensen, C. (Intern), Campana, R. (Ekstern), Castro-Tirado, A. (Ekstern), Cros, A. (Ekstern), Del Monte, E. (Ekstern), Donnarumma, I. (Ekstern), Evangelista, Y. (Ekstern), Galvez Sanchez, J. (Ekstern), Götz, D. (Ekstern), Hansen, F. (Intern), den Herder, J. (Ekstern), Hornstrup, A. (Intern), Hudec, R. (Ekstern), Karelin, D. (Ekstern), van der Klis, M. (Ekstern), Korpela, S. (Ekstern), Kuvvetli, I. (Intern), Lund, N. (Intern), Orleanski, P. (Ekstern), Pohl, M. (Ekstern), Rachevski, A. (Ekstern), Santangelo, A. (Ekstern), Schanne, S. (Ekstern), Schmid, C. (Ekstern), Stella, L. (Ekstern), Suchy, S. (Ekstern), Tenzer, C. (Ekstern), Vacchi, A. (Ekstern), Wilms, J. (Ekstern), Zampa, N. (Ekstern), in't Zand, J. (Ekstern), Zdziarski, A. (Ekstern)

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Publication date: 2013
Main Research Area: Technical/natural sciences

Publication information

Journal: E A S Publications Series

Volume: 61

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Ratings:

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Scopus rating (2015): SJR 0.18 SNIP 0.107 CiteScore 0.13

Scopus rating (2014): SJR 0.193 SNIP 0.104 CiteScore 0.18

Scopus rating (2013): SJR 0.204 SNIP 0.095 CiteScore 0.2

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): SJR 0.228 SNIP 0.157 CiteScore 0.26

ISI indexed (2012): ISI indexed no

Scopus rating (2011): SJR 0.195 SNIP 0.087 CiteScore 0.18

ISI indexed (2011): ISI indexed no

Scopus rating (2010): SJR 0.201 SNIP 0.139

Scopus rating (2009): SJR 0.163 SNIP 0.065

Scopus rating (2008): SJR 0.193 SNIP 0.183

Scopus rating (2007): SJR 0.136 SNIP 0.07

Scopus rating (2006): SJR 0.165 SNIP 0.176

Scopus rating (2005): SJR 0.171 SNIP 0.104

Original language: English

Electronic versions:

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DOIs:

10.1051/eas/1361098

Relations

Activities:

The Fall 2012 Gamma-Ray Burst Symposium (External organisation)

Projects:

Observing GRBs with the LOFT Wide Field Monitor

Source: dtu

Source-ID: u::8148

Publication: Research - peer-review › Journal article – Annual report year: 2013

Slewing Mirror Telescope and the Data-Acquisition System for the UFFO-Pathfinder

The Ultra-Fast Flash Observatory (UFFO) aims to detect the earliest moment of Gamma-Ray Bursts (GRBs) which is not well known, resulting into the enhancement of GRB mechanism understanding. The pathfinder mission was proposed to be a scaled-down version of UFFO, and only contains the UFFO Burst Alert & Trigger Telescope (UBAT) measuring the X-ray/gamma-ray with the wide-field of view and the Slewing Mirror Telescope (SMT) with a rapid-response for the UV/optical photons. Once the UBAT detects a GRB candidate with the position accuracy of 10 arcmin, the SMT steers the UV/optical photons from the candidate to the telescope by the fast rotatable mirror and provides the early UV/optical photons measurements with 4 arcsec accuracy. The SMT has a modified Ritchey-Chrétien telescope with the aperture size of 10 cm diameter including the rotatable mirror and the image readout by the intensified charge-coupled device. There is a key board called the UFFO Data Acquisition system (UDAQ) that manages the communication of each telescope and also of the satellite and the UFFO overall operation. This pathfinder is designed and built within the limited size and weight of ~20 kg and the low power consumption up to ~30 W. We will discuss the design and performance of the UFFO-pathfinder, and its integration to the Lomonosov satellite.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Sungkyunkwan University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Taiwan University, Korea Advanced Institute of Science & Technology, University of Valencia, University of California, National United University, Ewha Womans University, Yonsei University, Moscow State University

Authors: Lim, H. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chen, P. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern)

, Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang Huang, M. (Ekstern), Jung, A. (Ekstern), Jeong, S. (Ekstern), Kim, J. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Kim, Y. (Ekstern), Krasnov, A. (Ekstern), Lee, J. (Ekstern), Linder, E. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. (Ekstern), Na, G. (Ekstern), Nam, J. (Ekstern), Panasyuk, M. (Ekstern), Park, I. (Ekstern), Ripa, J. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. (Ekstern), Smoot, G. (Ekstern), Suh, J. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

Pages: 537-543

Publication date: 2013

Main Research Area: Technical/natural sciences

Publication information

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Scopus rating (2014): SJR 0.193 SNIP 0.104 CiteScore 0.18

Scopus rating (2013): SJR 0.204 SNIP 0.095 CiteScore 0.2

ISI indexed (2013): ISI indexed no

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Scopus rating (2012): SJR 0.228 SNIP 0.157 CiteScore 0.26

ISI indexed (2012): ISI indexed no

Scopus rating (2011): SJR 0.195 SNIP 0.087 CiteScore 0.18

ISI indexed (2011): ISI indexed no

Scopus rating (2010): SJR 0.201 SNIP 0.139

Scopus rating (2009): SJR 0.163 SNIP 0.065

Scopus rating (2008): SJR 0.193 SNIP 0.183

Scopus rating (2007): SJR 0.136 SNIP 0.07

Scopus rating (2006): SJR 0.165 SNIP 0.176

Scopus rating (2005): SJR 0.171 SNIP 0.104

Original language: English

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10.1051/eas/1361087

Relations

Activities:

The Fall 2012 Gamma-Ray Burst Symposium (External organisation)

Projects:

Slewing Mirror Telescope and the Data-Acquisition System for the UFFO-Pathfinder

Source: dtu

Source-ID: ur:8143

Publication: Research - peer-review › Journal article – Annual report year: 2013

Status report of the UFFO-pathfinder

Gamma-Ray Bursts (GRBs) are the most energetic explosions in the universe, their optical photonflux rise very quickly, typically within one minute, then fall off gradually. Hundreds of GRBs optical light curves have been measured since the first discovery of GRB in 1967. However, only a handful of measurements have been made within a minute after the gamma ray signal. Because of this drawback, the short-hard type GRBs and rapid-rising GRBs, which may account for 30% of all GRBs, remain practically unexplored. To reach sub-minute timescales, the Ultra-Fast Flash Observatory (UFFO) uses a rapidly moving mirror to redirect the optical beam instead of slewing the entire spacecraft. The first realization of this concept is UFFO-pathfinder, which is equipped with fast-response Slewing Mirror Telescope (SMT) and a UFFO Burst Alert and Trigger Telescope (UBAT). SMT has a slewing mirror to redirect optical photons into a telescope and then record them by an intensified CCD. UBAT uses coded mask to provide X-ray trigger from a GRB and provides the GRB location for SMT. UFFO sub-minute measurements of the optical emission of dozens of GRBs each year will result in a more rigorous test of current internal shock models, probe the extremes of bulk Lorentz factors, provide the first early and detailed measurements of fast-rise GRB optical light curves, and help verify the prospect of GRB as a new standard candle. The UFFO-pathfinder is fully integrated with the Lomonosov satellite and is scheduled to be launched in late 2013 or early 2014. We will present the latest progress in this conference

General information

State: Published

Organisations: National Space Institute, Astrophysics and Atmospheric Physics, National United University, Sungkyunkwan University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Space Organization, National Taiwan University, Korea Advanced Institute of Science and Technology, University of Valencia, University of California at Berkeley, Ewha Womans University, Yonsei University, Moscow State University

Authors: A. Huang, M. (Ekstern), Park, I. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castrotirado, A. J. (Ekstern), Chang, S. (Ekstern), Chang, Y. (Ekstern), Chen, C. (Ekstern), Chen, P. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Jung, A. (Ekstern), Jeong, S. (Ekstern), Huang, J. J. (Ekstern), Kim, J. E. (Ekstern), Kim, M. B. (Ekstern), Kim, S. W. (Ekstern), Kim, Y. W. (Ekstern), Krasnov, A. S. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Lin, C. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Panasyuk, M. I. (Ekstern), Reglero, V. (Ekstern), Ripa, J. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Suh, J. (Ekstern), Vertilov, S. S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

Number of pages: 4

Publication date: 2013

Host publication information

Title of host publication: Proceedings of the 33rd International Cosmic Ray Conference

Main Research Area: Technical/natural sciences

Conference: 33rd International Cosmic Ray Conference (ICRC2013), Rio de Janeiro, Brazil, 13/07/2013 - 13/07/2013

Electronic versions:

Huang_2.pdf

Bibliographical note

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 key = "1412572",
 author = "Park, I",
 title = "{Status report of the UFFO-pathfinder}",
 booktitle = "{Proceedings, 33rd International Cosmic Ray Conference
 (ICRC2013): Rio de Janeiro, Brazil, July 2-9, 2013}",
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 SLACcitation = "%CITATION = INSPIRE-1412572;%"
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The UFFO slewing mirror telescope for early optical observation from gamma ray bursts

While some space born observatories, such as SWIFT and FERMI, have been operating, early observation of optical after glow of GRBs is still remained as an unexplored region. The Ultra-Fast Flash Observatory (UFFO) project is a space observatory for optical follow-ups of GRBs, aiming to explore the first 60 seconds of GRBs optical emission. Using fast moving mirrors to redirect our optical path rather than slewing the entire spacecraft, UFFO is utilized to catch early optical emissions from GRB within 1 sec. We have developed the UFFO Pathfinder Telescope which is going to be on board of the Lomonosov satellite and launched in middle of 2012. We will discuss about scientific potentials of the UFFO project and present the payload development status, especially for Slewing Mirror Telescope which is the key instrument of the UFFO-pathfinder mission.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: NAM, J. (Ekstern), AHMAD, S. (Ekstern), AHN, K. (Ekstern), BARRILLON, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), CASTRO-TIRADO, A. J. (Ekstern), CHANG, S. (Ekstern), CHEN, C. (Ekstern), CHEN, P. (Ekstern), CHOI, Y. J. (Ekstern), CONNELL, P. (Ekstern), DAGORET-CAMPAGNE, S. (Ekstern), EYLES, C. (Ekstern), GROSSAN, B. (Ekstern), HUANG, M. A. (Ekstern), HUANG, J. (Ekstern), JEONG, S. (Ekstern), JUNG, A. (Ekstern), KIM, J. E. (Ekstern), KIM, S. H. (Ekstern), KIM, Y. W. (Ekstern), LEE, J. (Ekstern), LIM, H. (Ekstern), LIN, C. (Ekstern), LINDER, E. V. (Ekstern), LIU, T. (Ekstern), Lund, N. (Intern), MIN, K. W. (Ekstern), NA, G. W. (Ekstern), PANAYUK, M. I. (Ekstern), PARK, I. H. (Ekstern), RIPA, J. (Ekstern), REGLERO, V. (Ekstern), RODRIGO, J. M. (Ekstern), SMOOT, G. F. (Ekstern), SVERTILOV, S. (Ekstern), VEDENKIN, N. (Ekstern), WANG, M. (Ekstern), YASHIN, I. (Ekstern), ZHAO, M. H. (Ekstern)

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Publication date: 2013

Main Research Area: Technical/natural sciences

Publication information

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Article number: 1340003

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BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.609 SNIP 0.516 CiteScore 0.83
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.624 SNIP 0.594 CiteScore 0.95
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Scopus rating (2013): SJR 0.72 SNIP 0.582 CiteScore 1.07
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.718 SNIP 0.535 CiteScore 0.95
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.719 SNIP 0.511 CiteScore 0.9
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.71 SNIP 0.466
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.77 SNIP 0.47
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.897 SNIP 0.635
Scopus rating (2007): SJR 0.973 SNIP 0.658
Scopus rating (2006): SJR 0.798 SNIP 0.573
Scopus rating (2005): SJR 0.736 SNIP 0.527
Scopus rating (2004): SJR 0.756 SNIP 0.554
Scopus rating (2003): SJR 0.987 SNIP 0.578
Scopus rating (2002): SJR 0.89 SNIP 0.623
Scopus rating (2001): SJR 0.739 SNIP 0.493
Scopus rating (2000): SJR 0.81 SNIP 0.512
Scopus rating (1999): SJR 0.969 SNIP 0.585
Original language: English
Gamma ray bursts, After glow, Fast slewing
DOIs:
10.1142/S0217732313400038

Relations

Projects:

The UFFO slewing mirror telescope for early optical observation from gamma ray bursts

Source: dtu

Source-ID: n::oai:DTIC-ART:swets/385039212::29549

Publication: Research - peer-review › Journal article – Annual report year: 2013

Ultra-Fast Flash Observatory (uffo) for Observation of Early Photons from Gamma Ray Bursts

One of the least documented and understood aspects of gamma-ray bursts (GRB) is the rise phase of the optical light curve. The Ultra-Fast Flash Observatory (UFFO) is an effort to address this question through extraordinary opportunities presented by a series of space missions including a small spacecraft observatory. The UFFO is equipped with a fast-response Slewing Mirror Telescope (SMT) which uses rapidly moving mirror or mirror arrays to redirect the optical beam rather than slewing the entire spacecraft to aim the optical instrument at the GRB position. The UFFO will probe the early optical rise of GRBs with a sub-second response, for the first time, opening a completely new frontier in GRB and transient studies, the only GRB system which can point and measure on these time scales. Its fast response measurements of the optical emission of dozens of GRB each year will provide unique probes of the burst mechanism, shock breakouts in core-collapse supernovae, tidal disruptions around black holes, test Lorentz violation, be the electromagnetic counterpart to neutrino and gravitational wave signatures of the violent universe, and verify the prospect of GRB as a new standard candle potentially opening up the $z > 10$ universe. As a first step, we employ a motorized slewing stage in SMT which can

point to the event within 1s after X-ray trigger, in the UFFO-pathfinder payload onboard the Lomonosov satellite to be launched in 2012. The pathfinder was a small and limited, yet remarkably powerful micro-observatory for rapid optical response to bright gamma-ray bursts, the first part of our GRB and rapid-response long-term program. We describe the early photon science, the space mission of UFFO-pathfinder, and our plan for the next step.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Ewha Womans University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Taiwan University, Korea Advanced Institute of Science & Technology, University of Valencia, University of California, National United University, Moscow State University, Yonsei University

Authors: Park, I. H. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. J. (Ekstern), Chen, P. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, M. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Krasnov, A. S. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. (Ekstern), na, G. (Ekstern), Nam, J. W. (Ekstern), Panasyuk, M. I. (Ekstern), Ripa, J. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. (Ekstern), Suh, J. E. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

Pages: 259-273

Publication date: 2013

Host publication information

Title of host publication: Towards Ultimate Understanding of the Universe - Proceedings of the First Lecospa Symposium

Publisher: World Scientific Publishing Co Pte Ltd

Editor: Pisin, C.

ISBN (Print): 9789814449373

Main Research Area: Technical/natural sciences

Conference: First Lecospa Symposium, Taipei, Taiwan, Province of China, 06/02/2012 - 06/02/2012

Gamma Ray Burst, Ultra-fast flash observatory (UFFO), Slewing Mirror Telescope (SMT), Lomonosov spacecraft, Optical light curve, UV/Optical afterglows

DOIs:

10.1142/9789814449373_0023

Relations

Projects:

Ultra-Fast Flash Observatory (uffo) for Observation of Early Photons from Gamma Ray Bursts

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

A next generation Ultra-Fast Flash Observatory (UFFO-100) for IR/optical observations of the rise phase of gamma-ray bursts

The Swift Gamma-ray Burst (GRB) observatory responds to GRB triggers with optical observations in ~ 100 s, but cannot respond faster than ~ 60 s. While some rapid-response ground-based telescopes have responded quickly, the number of sub-60 s detections remains small. In 2013 June, the Ultra-Fast Flash Observatory-Pathfinder is expected to be launched on the Lomonosov spacecraft to investigate early optical GRB emission. Though possessing unique capability for optical rapid-response, this pathfinder mission is necessarily limited in sensitivity and event rate; here we discuss the next generation of rapid-response space observatory instruments. We list science topics motivating our instruments, those that require rapid optical-IR GRB response, including: A survey of GRB rise shapes/times, measurements of optical bulk Lorentz factors, investigation of magnetic dominated (vs. non-magnetic) jet models, internal vs. external shock origin of prompt optical emission, the use of GRBs for cosmology, and dust evaporation in the GRB environment. We also address the impacts of the characteristics of GRB observing on our instrument and observatory design. We describe our instrument designs and choices for a next generation space observatory as a second instrument on a low-earth orbit spacecraft, with a 120 kg instrument mass budget. Restricted to relatively modest mass, power, and launch resources, we find that a coded mask X-ray camera with 1024 cm^2 of detector area could rapidly locate about 64 GRB triggers/year.

Responding to the locations from the X-ray camera, a 30 cm aperture telescope with a beam-steering system for rapid (~ 1 s) response and a near-IR camera should detect ~ 29 GRB, given Swift GRB properties. The additional optical camera would permit the measurement of a broadband optical-IR slope, allowing better characterization of the emission, and dynamic measurement of dust extinction at the source, for the first time. © (2012) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE). Downloading of the abstract is permitted for personal use only.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Grossan, B. (Ekstern), Park, I. (Ekstern), Ahmad, S. (Ekstern), Ahn, K. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chen, P. (Ekstern), Choi, H. (Ekstern), Choi, J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), De La Taille, C. (Ekstern), Eyles, C. (Ekstern),

Hermann, I. (Ekstern), Huang, M. A. (Ekstern), Jung, A. (Ekstern), Jeong, S. (Ekstern), Kim, J. E. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Kim, Y. W. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Panasyuk, M. I. (Ekstern), Ripa, J. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Suh, J. E. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern), Zhao, M. H. (Ekstern)

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Publication date: 2012

Conference: Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, Netherlands, 01/07/2012 - 01/07/2012

Main Research Area: Technical/natural sciences

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Journal: Proceedings of S P I E - International Society for Optical Engineering

Volume: 8443

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Scopus rating (2014): CiteScore 0.3

Scopus rating (2013): CiteScore 0.26

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): CiteScore 0.27

ISI indexed (2012): ISI indexed no

Web of Science (2012): Indexed yes

Scopus rating (2011): CiteScore 0.31

Web of Science (2010): Indexed yes

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Web of Science (2002): Indexed yes

Original language: English

Gamma-ray bursts, X-ray instrumentation, Space astrophysics missions, Space astrophysics instrumentation, Ultra-fast flash observatory (UFFO)

DOIs:

10.1117/12.926391

Relations

Activities:

Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

Projects:

A next generation Ultra-Fast Flash Observatory (UFFO-100) for IR/optical observations of the rise phase of gamma-ray bursts

Source: dtu

Source-ID: n::oai:DTIC-ART:bl/374304832::21769

Publication: Research - peer-review › Conference article – Annual report year: 2012

Design and implementation of the UFFO burst alert and trigger telescope

The Ultra Fast Flash Observatory pathfinder (UFFO-p) is a telescope system designed for the detection of the prompt optical/UV photons from Gamma-Ray Bursts (GRBs), and it will be launched onboard the Lomonosov spacecraft in 2012. The UFFO-p consists of two instruments: the UFFO Burst Alert and Trigger telescope (UBAT) for the detection and location of GRBs, and the Slewing Mirror Telescope (SMT) for measurement of the UV/optical afterglow. The UBAT is a coded-mask aperture X-ray camera with a wide field of view (FOV) of 1.8 sr. The detector module consists of the YSO (Yttrium Oxyorthosilicate) scintillator crystal array, a grid of 36 multi-anode photomultipliers (MAPMTs), and analog and digital readout electronics. When the γ /X-ray photons hit the YSO scintillator crystal array, it produces UV photons by scintillation in proportion to the energy of the incident γ /X-ray photons. The UBAT detects X-ray source of GRB in the 5 ~ 100 keV energy range, localizes the GRB within 10 arcmin, and sends the SMT this information as well as drift correction in real time. All the process is controlled by a Field Programmable Gates Arrays (FPGA) to reduce the processing time. We are in the final stages of the development and expect to deliver the instrument for the integration with the spacecraft. In what follows we present the design, fabrication and performance test of the UBAT.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Ewha Womans University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Taiwan University, Korea Advanced Institute of Science & Technology, University of Valencia, University of California, National United University, Yonsei University

Authors: Kim, J. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chen, P. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, M. – A. (Ekstern), Jung, A. (Ekstern), Jeong, S. (Ekstern), Kim, M. B. (Ekstern), Kim, S. - . (Ekstern), Kim, Y. W. (Ekstern), Lund, N. (Intern)

Number of pages: 8

Pages: 84432V

Publication date: 2012

Conference: Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, Netherlands, 01/07/2012 - 01/07/2012

Main Research Area: Technical/natural sciences

Publication information

Journal: Proceedings of SPIE - International Society for Optical Engineering

Volume: 8443

Issue number: PART 2

ISSN (Print): 0277-786X

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Scopus rating (2016): CiteScore 0.42

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Scopus rating (2014): CiteScore 0.3

Scopus rating (2013): CiteScore 0.26

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): CiteScore 0.27

ISI indexed (2012): ISI indexed no

Web of Science (2012): Indexed yes

Scopus rating (2011): CiteScore 0.31

Web of Science (2010): Indexed yes

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Web of Science (2007): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2002): Indexed yes

Original language: English

Bibliographical note

Note incomplete author list.

Relations

Activities:

Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

Projects:

Design and implementation of the UFFO burst alert and trigger telescope

Source: dtu

Source-ID: n::oai:DTIC-ART:bl/374304846::21749

Publication: Research - peer-review > Conference article – Annual report year: 2012

LOFT - The large observatory for x-ray timing

The LOFT mission concept is one of four candidates selected by ESA for the M3 launch opportunity as Medium Size missions of the Cosmic Vision programme. The launch window is currently planned for between 2022 and 2024. LOFT is designed to exploit the diagnostics of rapid X-ray flux and spectral variability that directly probe the motion of matter down to distances very close to black holes and neutron stars, as well as the physical state of ultradense matter. These primary science goals will be addressed by a payload composed of a Large Area Detector (LAD) and a Wide Field Monitor (WFM). The LAD is a collimated (

General information

State: Published

Organisations: National Space Institute, Astrophysics, IT-Department

Authors: Feroci, M. (Ekstern), Den Herder, J. (Ekstern), Argan, A. (Ekstern), Campana, R. (Ekstern), Del Monte, E. (Ekstern), De Rosa, A. (Ekstern), Donnarumma, I. (Ekstern), Muleri, F. (Ekstern), Rapisarda, M. (Ekstern), Soffitta, P. (Ekstern), Trois, A. (Ekstern), In't Zand, J. (Ekstern), Kuiper, L. (Ekstern), Bozzo, E. (Ekstern), Azzarello, P. (Ekstern), Courvoisier, T. (Ekstern), Ferrigno, C. (Ekstern), Manousakis, A. (Ekstern), Tramacere, A. (Ekstern), Alpar, A. (Ekstern), Van Der Klis, M. (Ekstern), Watts, A. (Ekstern), Altamirano, D. (Ekstern), Uttley, P. (Ekstern), Wijers, R. (Ekstern), Wijnands, R. (Ekstern), Hernanz, M. (Ekstern), Alvarez, L. (Ekstern), Caliendo, G. (Ekstern), Sanchez, J. G. (Ekstern), Isern, J. (Ekstern), Karelín, D. (Ekstern), Papitto, A. (Ekstern), Rea, N. (Ekstern), Sala, G. (Ekstern), Tolos, L. (Ekstern), Amati, L. (Ekstern), Fuschino, F. (Ekstern), Marisaldi, M. (Ekstern), Orlandini, M. (Ekstern), Barret, D. (Ekstern), Amorós, C. (Ekstern), Cros, A. (Ekstern), Lin, D. (Ekstern), Rambaud, D. (Ekstern), Webb, N. (Ekstern), Andersson, N. (Ekstern), Antonelli, A. (Ekstern), D'Elia, V. (Ekstern), Gendre, B. (Ekstern), Giommi, P. (Ekstern), Stratta, G. (Ekstern), Balman, S. (Ekstern), Barbera, M. (Ekstern), D'Ai, A. (Ekstern), Di Salvo T. (Ekstern), Belloni, T. (Ekstern), Campana, S. (Ekstern), Motta, S. (Ekstern), Ahangarianabhari, M. (Ekstern), Bertuccio, G. (Ekstern), Bodin, P. (Ekstern), Macera, D. (Ekstern), Bianchini, A. (Ekstern), Tamburini, F. (Ekstern), Bidaud, J. B. (Ekstern), Götz, D. (Ekstern), Gouiffes, C. (Ekstern), Portel, J. (Ekstern), Rodriguez, J. (Ekstern), Schanne, S. (Ekstern), Santangelo, A. (Ekstern), Boutloukos, S. (Ekstern), Diebold, S. (Ekstern), Klochkov, D. (Ekstern), Kokkotas, K. (Ekstern), Labanti, C. (Ekstern), Maier, D. (Ekstern), Oze, F. (Ekstern), Perinati, E. (Ekstern), Suchy, S. (Ekstern), Sulemainov, V. (Ekstern), Tenzer, C. (Ekstern), Uter, P. (Ekstern), Wende, H. (Ekstern), Braga, J. (Ekstern), Rodríguez-Gi, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Chenevez, J. (Intern), Hansen, F. (Intern), Hornstrup, A. (Intern), Kuvvetli, I. (Intern), Lund, N. (Intern), Migliari, S. (Ekstern), Miller, J. (Ekstern), Bucciantini, N. (Ekstern), Burderi, L. (Ekstern), Bursa, M. (Ekstern), Hudec, R. (Ekstern), Karas, V. (Ekstern), Sochora, V. (Ekstern), Fabian, A. (Ekstern), Pohl, M. (Ekstern), Cadoux, F. (Ekstern), Favre, Y. (Ekstern), Cais, P. (Ekstern), Stella, L. (Ekstern), Casella, P. (Ekstern), Israel, G. (Ekstern), Chakrabarty, D. (Ekstern), Homan, J. (Ekstern), Nowak, M. (Ekstern), Remillard, R. (Ekstern), Weinberg, N. (Ekstern), Zane, S. (Ekstern), Coker, J. (Ekstern), Kataria, D. (Ekstern), Kennedy, T. (Ekstern), Linder, D. (Ekstern), Mignani, R. (Ekstern), Smith, A. (Ekstern), Smith, P. (Ekstern), Walton, D. (Ekstern), Winter, B. (Ekstern), Artigue, R. (Ekstern), Cumming, A. (Ekstern), De Martino, D. (Ekstern), Drago, A. (Ekstern), Guidorzi, C. (Ekstern), Durant, M. (Ekstern), Falanga, M. (Ekstern), Feldman, C. (Ekstern), Fraser, G. (Ekstern), Martindale, A. (Ekstern), O'Brien, P. (Ekstern), Osborne, J. (Ekstern), Vaughan, S. (Ekstern), Finger, M. (Ekstern), Galloway, D. (Ekstern), Heger, A. (Ekstern), Cole, R. (Ekstern), Giles, A. (Ekstern), Gilfanov, M. (Ekstern), Di Cosimo, S. (Ekstern), Groot, P. (Ekstern), Hartmann, D. (Ekstern), Haswell, C. (Ekstern), Norton, A. (Ekstern), Wilson-Hodge, C. (Ekstern), Huvelin, J. (Ekstern), Korpela, S. (Ekstern), Ingram, A. (Ekstern), Izzo, L. (Ekstern), Evangelista, Y. (Ekstern), Brown, E. (Ekstern), Kaaret, P. (Ekstern), Keek, L. (Ekstern), Kluzniak, W. (Ekstern), Zdziarski, A. (Ekstern), Kouveliotou, C. (Ekstern), Lai, D. (Ekstern), Lamb, F. (Ekstern), Lodato, G. (Ekstern), Longo, F. (Ekstern), Grassi, M. (Ekstern), Malcovati, P. (Ekstern), Cusumano, G. (Ekstern), Mangano, V. (Ekstern), Mineo, T. (Ekstern), Romano, P. (Ekstern), Stelzer, B. (Ekstern), Vercellone, S. (Ekstern), Smith, D. (Ekstern), Bianchi, S. (Ekstern), Matt, G. (Ekstern), Melatos, A. (Ekstern), Mendez, M. (Ekstern), Sanna, A. (Ekstern), Soleri, P. (Ekstern), Gezari, S. (Ekstern), Miller, M. (Ekstern), Reynolds, C. (Ekstern), Aranda, M. R. (Ekstern), Sabau-Graziati, L. (Ekstern), Morsink, S. (Ekstern), Motch, C. (Ekstern), Mouchet, M. (Ekstern), Garcia-Berro, E. (Ekstern), Orleanski, P. (Ekstern), Wawrzaszek, R. (Ekstern), Osten, R. (Ekstern), Psaltis, D. (Ekstern), Paul, B. (Ekstern), Hudec, R. (Ekstern), Petracek, V. (Ekstern), Poutanen, J. (Ekstern), Zampa, N. (Ekstern), Pacciani, L. (Ekstern), Ramsay, G. (Ekstern), Rachevski, A. (Ekstern), Vacchi, A. (Ekstern), Zampa, G. (Ekstern), Ray, P. (Ekstern), Wood, K. (Ekstern), Jonker, P. (Ekstern), Reddy, S. (Ekstern), Reig, P. (Ekstern), Haas, D. (Ekstern), Rossi, E. (Ekstern), Ryde, F. (Ekstern), Salvaterra, R. (Ekstern), Schee, J. (Ekstern), Stuchlik, Z. (Ekstern), Torok, G. (Ekstern), Wilms, J. (Ekstern), Kreykenbohm, I. (Ekstern), Schmid, C. (Ekstern), Wille, M. (Ekstern), Schwenk, A. (Ekstern), Schwöpe, A. (Ekstern), Shearer, A. (Ekstern), Stappers, B. (Ekstern), Stergioulas, N. (Ekstern), Strohmayer, T. (Ekstern), Takahashi, T. (Ekstern), Watanabe, S. (Ekstern), Torrejon, J. (Ekstern), Torres, D. (Ekstern), Vrba, V. (Ekstern), Wheatley, P. (Ekstern), Orío, M. (Ekstern), Zampieri, L. (Ekstern), Zhang, B. (Ekstern), Turriziani, S. (Ekstern), Giovannini, G. (Ekstern), Giroletti, M. (Ekstern), Orienti, M. (Ekstern), Baldazzi, G. (Ekstern), Rodríguez-Gi, P. (Ekstern), Goldwurm, A. (Ekstern), Lebrun, F. (Ekstern), Varniere, P. (Ekstern), Barbera, M. (Ekstern), Collura, A. (Ekstern), Emmanoulopoulos, D. (Ekstern), Maccarone, T. (Ekstern), McHardy, I. (Ekstern), Mignani, R. (Ekstern), Markowitz, A. (Ekstern), Reig, P. (Ekstern), Miniutti, G. (Ekstern), Orío, M. (Ekstern), Feroci, M. (Ekstern), Cackett, E. (Ekstern), Campana, R. (Ekstern), Del Monte, E. (Ekstern), Evangelista, Y. (Ekstern), Muleri, F. (Ekstern), Pacciani, L. (Ekstern), Rapisarda, M. (Ekstern), Seyler, J. (Ekstern)

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Pages: 84432D

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Conference: Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, Netherlands, 01/07/2012 - 01/07/2012

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BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.2 SNIP 0.259 CiteScore 0.26
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Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.197 SNIP 0.264 CiteScore 0.31
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Scopus rating (2010): SJR 0.208 SNIP 0.241
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BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.211 SNIP 0.271
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.222 SNIP 0.289
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.227 SNIP 0.37
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 0.308 SNIP 0.701
Scopus rating (2005): SJR 0.158 SNIP 0.343
Web of Science (2004): Indexed yes
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Original language: English
Experiments, Gamma rays, Space telescopes, Stars, X ray spectroscopy, Buildings
DOIs:
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Relations

Activities:

Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

Projects:

LOFT - The large observatory for x-ray timing

Source: dtu

Source-ID: n::oai:DTIC-ART:compindex/377462415::25271

Publication: Research - peer-review › Journal article – Annual report year: 2012

The Large Observatory for X-ray Timing (LOFT)

High-time-resolution X-ray observations of compact objects provide direct access to strong-field gravity, to the equation of state of ultradense matter and to black hole masses and spins. A 10 m²-class instrument in combination with good spectral resolution is required to exploit the relevant diagnostics and answer two of the fundamental questions of the European Space Agency (ESA) Cosmic Vision Theme "Matter under extreme conditions", namely: does matter orbiting close to the event horizon follow the predictions of general relativity? What is the equation of state of matter in neutron stars? The Large Observatory For X-ray Timing (LOFT), selected by ESA as one of the four Cosmic Vision M3 candidate missions to undergo an assessment phase, will revolutionise the study of collapsed objects in our galaxy and of the brightest supermassive black holes in active galactic nuclei. Thanks to an innovative design and the development of large-area monolithic silicon drift detectors, the Large Area Detector (LAD) on board LOFT will achieve an effective area of ~12 m² (more than an order of magnitude larger than any spaceborne predecessor) in the 2-30 keV range (up to 50 keV in expanded mode), yet still fits a conventional platform and small/medium-class launcher. With this large area and a spectral resolution of

General information

State: Published

Organisations: Astrophysics, National Space Institute, IT-Department, University of Amsterdam, University of Roma 'Tor Vergata', National Institute for Astrophysics

Authors: Feroci, M. (Ekstern), Stella, L. (Ekstern), van der Klis, M. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Chenevez, J. (Intern), Ferreira, D. D. M. (Intern), Hornstrup, A. (Intern), Kuvvetli, I. (Intern), Lund, N. (Intern)

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Main Research Area: Technical/natural sciences

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Scopus rating (2016): CiteScore 2.14

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 2.3

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 2.26

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 2.28

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 1.8

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 1.92

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Web of Science (2008): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2001): Indexed yes

Original language: English

X-ray timing, Compact objects, Missions, Neutron stars, Black holes

DOIs:

10.1007/s10686-011-9237-2

Bibliographical note

Incomplete author list

Relations

Projects:

The Large Observatory for X-ray Timing (LOFT)

Source: orbit

Source-ID: 313288

The LOFT (Large Observatory for X-ray Timing) background simulations

The Large Observatory For X-ray Timing (LOFT) is an innovative medium-class mission selected for an assessment phase in the framework of the ESA M3 Cosmic Vision call. LOFT is intended to answer fundamental questions about the behavior of matter in the very strong gravitational and magnetic fields around compact objects. With an effective area of $\sim 10 \text{ m}^2$ LOFT will be able to measure very fast variability in the X-ray fluxes and spectra. A good knowledge of the in-orbit background environment is essential to assess the scientific performance of the mission and to optimize the instrument design. The two main contributions to the background are cosmic diffuse X-rays and high energy cosmic rays; also, albedo emission from the Earth is significant. These contributions to the background for both the Large Area Detector and the Wide Field Monitor are discussed, on the basis of extensive Geant-4 simulations of a simplified instrumental mass model. © (2012) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE).

General information

State: Published

Organisations: National Space Institute, Astrophysics, National Institute for Astrophysics, Institute of Space Sciences, Eberhard-Karls-Universität Tübingen

Authors: Campana, R. (Ekstern), Feroci, M. (Ekstern), Del Monte, E. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Alvarez, J. (Ekstern), Hernanz, M. (Ekstern), Perinati, E. (Ekstern)

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Conference: Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, Netherlands, 01/07/2012 - 01/07/2012

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Scopus rating (2013): CiteScore 0.26

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): CiteScore 0.27

ISI indexed (2012): ISI indexed no

Web of Science (2012): Indexed yes

Scopus rating (2011): CiteScore 0.31

Web of Science (2010): Indexed yes

Web of Science (2008): Indexed yes

Web of Science (2007): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2002): Indexed yes

Original language: English

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Relations

Activities:

Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

Projects:

The LOFT (Large Observatory for X-ray Timing) background simulations

Source: dtu

Source-ID: n::oai:DTIC-ART:bl/374305080::21748

Publication: Research - peer-review › Conference article – Annual report year: 2012

The LOFT wide field monitor

LOFT (Large Observatory For x-ray Timing) is one of the four missions selected in 2011 for assessment study for the ESA M3 mission in the Cosmic Vision program, expected to be launched in 2024. The LOFT mission will carry two instruments with their prime sensitivity in the 2-30 keV range: a 10 m² class large area detector (LAD) with a <1° collimated field of view and a wide field monitor (WFM) instrument based on the coded mask principle, providing coverage of more than 1/3 of the sky. The LAD will provide an effective area ~20 times larger than any previous mission and will by timing studies be able to address fundamental questions about strong gravity in the vicinity of black holes and the equation of state of nuclear matter in neutron stars. The prime goal of the WFM will be to detect transient sources to be observed by the LAD. However, with its wide field of view and good energy resolution of <300 eV, the WFM will be an excellent monitoring instrument to study long term variability of many classes of X-ray sources. The sensitivity of the WFM will be 2.1 mCrab in a one day observation, and 270 mCrab in 3s in observations of in the crowded field of the Galactic Center. The high duty cycle of the instrument will make it an ideal detector of fast transient phenomena, like X-ray bursters, soft gamma repeaters, terrestrial gamma flashes, and not least provide unique capabilities in the study of gamma ray bursts. A dedicated burst alert system will enable the distribution to the community of ~100 gamma ray burst positions per year with a ~1 arcmin location accuracy within 30 s of the burst. This paper provides an overview of the design, configuration, and capabilities of the LOFT WFM instrument.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Technical University of Denmark

Authors: Brandt, S. (Intern), Hernanz, M. (Ekstern), Alvarez, L. (Ekstern), Azzarello, P. (Ekstern), Barret, D. (Ekstern), Bozzo, E. (Ekstern), Budtz-Jørgensen, C. (Intern), Campana, R. (Ekstern), del Monte, E. (Ekstern), Donnarumma, I. (Ekstern), Evangelista, Y. (Ekstern), Feroci, M. (Ekstern), Galvez Sanchez, J. L. (Ekstern), Götz, D. (Ekstern), Hansen, F. (Ekstern), W. den Herder, J. (Ekstern), Hudec, R. (Ekstern), Huovelin, J. (Ekstern), Karelin, D. (Ekstern), Korpela, S. (Ekstern), Lund, N. (Intern), Orleanski, P. (Ekstern), Pohl, M. (Ekstern), Rachevski, A. (Ekstern), Santangelo, A. (Ekstern), Schanne, S. (Ekstern), Schmid, C. (Ekstern), Suchy, S. (Ekstern), Tenzer, C. (Ekstern), Vacchi, A. (Ekstern), Wilms, J. (Ekstern), Zampa, G. (Ekstern), Zampa, N. (Ekstern), in't Zand, J. (Ekstern), Zdziarski, A. (Ekstern)

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Conference: Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, Netherlands, 01/07/2012 - 01/07/2012

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BFI (2015): BFI-level 1

Scopus rating (2015): SJR 0.187 SNIP 0.224 CiteScore 0.3

BFI (2014): BFI-level 1

Scopus rating (2014): SJR 0.188 SNIP 0.231 CiteScore 0.3

BFI (2013): BFI-level 1

Scopus rating (2013): SJR 0.2 SNIP 0.259 CiteScore 0.26

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BFI (2012): BFI-level 1

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ISI indexed (2012): ISI indexed no

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BFI (2011): BFI-level 1

Scopus rating (2011): SJR 0.197 SNIP 0.264 CiteScore 0.31

ISI indexed (2011): ISI indexed no

BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.208 SNIP 0.241
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.211 SNIP 0.271
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.222 SNIP 0.289
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.227 SNIP 0.37
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 0.308 SNIP 0.701
Scopus rating (2005): SJR 0.158 SNIP 0.343
Web of Science (2004): Indexed yes
Web of Science (2002): Indexed yes
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Relations

Activities:

Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

Projects:

The LOFT wide field monitor

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Publication: Research - peer-review > Conference article – Annual report year: 2012

The LOFT wide field monitor simulator

We present the simulator we developed for the Wide Field Monitor (WFM) aboard the Large Observatory For X-ray Timing (LOFT) mission, one of the four ESA M3 candidate missions considered for launch in the 2022–2024 timeframe. The WFM is designed to cover a large FoV in the same bandpass as the Large Area Detector (LAD, almost 50% of its accessible sky in the energy range 2–50 keV), in order to trigger follow-up observations with the LAD for the most interesting sources. Moreover, its design would allow to detect transient events with fluxes down to a few mCrab in 1-day exposure, for which good spectral and timing resolution would be also available (about 300 eV FWHM and 10 μ s, respectively). In order to investigate possible WFM configurations satisfying these scientific requirements and assess the instrument performance, an end-to-end WFM simulator has been developed. We can reproduce a typical astr

General information

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Organisations: National Space Institute, Astrophysics, National Institute for Astrophysics, SRON Netherlands Institute for Space Research, Friedrich-Alexander-University of Erlangen-Nürnberg

Authors: Donnarumma, I. (Ekstern), Evangelista, Y. (Ekstern), Campana, R. (Ekstern), in't Zand, J. (Ekstern), Feroci, M. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Wilms, J. (Ekstern), Schmid, C. (Ekstern)

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BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.2 SNIP 0.259 CiteScore 0.26
ISI indexed (2013): ISI indexed no
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BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.194 SNIP 0.243 CiteScore 0.27
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BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.197 SNIP 0.264 CiteScore 0.31
ISI indexed (2011): ISI indexed no
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.208 SNIP 0.241
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.211 SNIP 0.271
BFI (2008): BFI-level 1
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Scopus rating (2007): SJR 0.227 SNIP 0.37
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 0.308 SNIP 0.701
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Web of Science (2004): Indexed yes
Web of Science (2002): Indexed yes
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Relations

Activities:

Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

Projects:

The LOFT wide field monitor simulator

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The readout system and the trigger algorithm implementation for the UFFO Pathfinder

Since the launch of the SWIFT, Gamma-Ray Bursts (GRBs) science has been much progressed. Especially supporting many measurements of GRB events and sharing them with other telescopes by the Gamma-ray Coordinate Network (GCN) have resulted the richness of GRB events, however, only a few of GRB events have been measured within a minute after the gamma ray signal. This lack of sub-minute data limits the study for the characteristics of the UV-optical light curve of the short-hard type GRB and the fast-rising GRB. Therefore, we have developed the telescope named the Ultra-Fast Flash Observatory (UFFO) Pathfinder, to take the sub-minute data for the early photons from GRB. The UFFO Pathfinder has a coded-mask X-ray camera to search the GRB location by the UBAT trigger algorithm. To determine the direction of GRB as soon as possible it requires the fast processing. We have ultimately implemented all algorithms in field programmable gate arrays (FPGA) without microprocessor. Although FPGA, when compared with microprocessor, is generally estimated to support the fast processing rather than the complex processing, we have developed the implementation to overcome the disadvantage and to maximize the advantage. That is to measure the location as accurate as possible and to determine the location within the sub-second timescale. In the particular case for a accuracy of the X-ray trigger, it requires special information from the satellite based on the UFFO central control system. We present the implementation of the UBAT trigger algorithm as well as the readout system of the UFFO Pathfinder

General information

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Authors: Na, G. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chen, P. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, M. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, M. B. (Ekstern), Kim, S. (Ekstern), Kim, Y. W. (Ekstern), Krasnov, A. S. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Nam, J. W. (Ekstern), Park, I. H. (Ekstern), Panasyuk, M. I. (Ekstern), Ripa, J. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Suh, J. E. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

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Web of Science (2007): Indexed yes

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Ultra-fast flash observatory (UFFO), Gamma-ray bursts, Trigger algorithm, Imaging, Data acquisition, Readout system, Field programmable get arrays

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Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray

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The slewing mirror telescope of the Ultra Fast Flash Observatory Pathfinder

The Slewing Mirror Telescope (SMT) is a key telescope of Ultra-Fast Flash Observatory (UFFO) space project to explore the first sub-minute or sub-seconds early photons from the Gamma Ray Bursts (GRBs) afterglows. As the realization of UFFO, 20kg of UFFO-Pathfinder (UFFO-P) is going to be on board the Russian Lomonosov satellite in November 2012 by Soyuz-2 rocket. Once the UFFO Burst Alert & Trigger Telescope (UBAT) detects the GRBs, Slewing mirror (SM) will slew to bring new GRB into the SMT's field of view rather than slewing the entire spacecraft. SMT can give a UV/Optical counterpart position rather moderated 4arcsec accuracy. However it will provide a important understanding of the GRB mechanism by measuring the sub-minute optical photons from GRBs. SMT can respond to the trigger over 35 degree x 35 degree wide field of view within 1 sec by using Slewing Mirror Stage (SMS). SMT is the reflecting telescope with 10cm Ritchey-Chretien type and 256 x 256 pixilated Intensified Charge-Coupled Device (ICCD). In this paper, we discuss the overall design of UFFO-P SMT instrument and payloads development status. © (2012) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE). Downloading of the abstract is permitted for personal use only.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Jeong, S. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. (Ekstern), Chen, P. (Ekstern), Choi, Y. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, M. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, M. B. (Ekstern), Kim, S. (Ekstern), Kim, Y. W. (Ekstern), Krasnov, A. S. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Park, I. H. (Ekstern), Panasyuk, M. I. (Ekstern), Ripa, J. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Suh, J. E. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern), Ahn, K. (Ekstern)

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Relations

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The slewing mirror telescope of the Ultra Fast Flash Observatory Pathfinder

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The Ultra-Fast Flash Observatory's space GRB mission and science

Abstract. The Ultra-Fast Flash Observatory (UFFO) is a space mission to detect the early moments of an explosion from Gamma-ray bursts (GRBs), thus enhancing our understanding of the GRB mechanism. It consists of the UFFO Burst & Trigger telescope (UBAT) for the recognition of GRB positions using hard X-ray from GRBs. It also contains the Slewing Mirror Telescope (SMT) for the fast detection of UV-optical photons from GRBs. It is designed to begin the UV-optical observations in less than a few seconds after the trigger. The UBAT is based on a coded-mask X-ray camera with a wide field of view (FOV) and is composed of the coded mask, a hopper and a detector module. The SMT has a fast rotatable mirror which allows a fast UV-optical detection after the trigger. The telescope is a modified Ritchey-Chretien telescope with the aperture size of 10 cm diameter, and an image intensifier readout by CCD. The UFFO pathfinder is scheduled to launch into orbit on 2012 June by the Lomonosov spacecraft. It is a scaled-down version of UFFO in order to make the first systematic study of early UV/optical light curves, including the rise phase of GRBs. We expect UBAT to trigger ~44 GRBs/yr and expect SMT to detect ~10 GRBs/yr.

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Authors: Lim, H. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Blin-Bondil, S. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. J. (Ekstern), Chen, P. (Ekstern), Choi, H. S. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), De La Taille, C. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Hermann, I. (Ekstern), Huang, M. A. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, S. - W. (Ekstern), Kim, Y. W. (Ekstern), Lee, J. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Nam, K. H. (Ekstern), Panasyuk, M. I. (Ekstern), Park, I. H. (Ekstern), Reglero, V. (Ekstern), Ripa, J. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Svetilov, S. (Ekstern), Vedenkin, N. (Ekstern), Yashin, I. (Ekstern)

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Ultra-Fast Flash Observatory for observation of early photons from gamma ray bursts

We describe the space project of Ultra-Fast Flash Observatory (UFFO) which will observe early optical photons from gamma-ray bursts (GRBs) with a sub-second optical response, for the first time. The UFFO will probe the early optical rise of GRBs, opening a completely new frontier in GRB and transient studies, using a fast response Slewing Mirror Telescope (SMT) that redirects optical path to telescope instead of slewing of telescopes or spacecraft. In our small UFFO-Pathfinder experiment, scheduled to launch aboard the Lomonosov satellite in 2012, we use a motorized mirror in our Slewing Mirror Telescope instrument to achieve less than one second optical response after X-ray trigger. We describe the science and the mission of the UFFO project, including a next version called UFFO-100. With our program of ultra-fast optical response GRB observatories, we aim to gain a deeper understanding of GRB mechanisms, and potentially open up the z<10 universe to study via GRB as point source emission probes. © (2012) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE). Downloading of the abstract is permitted for personal use only.

General information

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Organisations: National Space Institute, Astrophysics, Ewha Womans University, University of Paris-Sud - University of Paris XI, Instituto de Astrofísica de Andalucía, National Taiwan University, Korea Advanced Institute of Science & Technology, University of Valencia, University of California, National United University, Yonsei University, Moscow State University

Authors: Park, I. H. (Ekstern), Ahmad, S. (Ekstern), Barrillon, P. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. J. (Ekstern), Chen, P. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Huang, M. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, M. (Ekstern), Kim, S. (Ekstern), Krasnov, A. S. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. (Ekstern), na, G. (Ekstern), Nam, J. W. (Ekstern), Panasyuk, M. I. (Ekstern), Ripa, J. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. (Ekstern), Suh, J. E. (Ekstern), Svertilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern)

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Ultra-Fast Flash Observatory for observation of early photons from gamma ray bursts

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Design and Fabrication of Detector Module for UFFO Burst Alert & Trigger Telescope

The Ultra-Fast Flash Observatory (UFFO) pathfinder is a space mission devoted to the measurement of Gamma-Ray Bursts (GRBs), especially their early light curves which will give crucial information on the progenitor stars and central engines of the GRBs. It consists of two instruments: the UFFO Burst Alert & Trigger telescope (UBAT) for the detection of GRB locations and the Slewing Mirror Telescope (SMT) for the UV/optical afterglow observations, upon triggering by UBAT. The UBAT employs a coded-mask γ -X-ray camera with a wide field of view (FOV), and is comprised of three parts: a coded mask, a hopper, and a detector module (DM). The UBAT DM consists of a LYSO scintillator crystal array, multi-anode photo multipliers, and analog and digital readout electronics. We present here the design and fabrication of the UBAT DM, as well as its preliminary test results.

General information

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Authors: Jung, A. (Ekstern), Ahmad, S. (Ekstern), Ahn, K. -. (Ekstern), Barrillon, P. (Ekstern), Blin-Bondil, S. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), CaStro-Tirado, A. J. (Ekstern), Chen, P. (Ekstern), Choi, H. S. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), De La Taille, C. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Hermann, I. (Ekstern), Huang, M. -. A. (Ekstern), Jeong, S. (Ekstern), Kim, J. E. (Ekstern), Kim, S. -. (Ekstern), Kim, Y. W. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. -. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Nam, K. H. (Ekstern), Panasyuk, M. I. (Ekstern), Park, I. H. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Suh, Y. D. (Ekstern), Sverilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. -. (Ekstern), Yashin, I. (Ekstern), Zhao, M. H. (Ekstern), Collaboration, F. T. U. (Ekstern)

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Ultra-Fast Flash Observatory (UFFO) pathfinder, Gamma-Ray Bursts (GRBs), UFFO Burst Alert & Trigger telescope (UBAT), Slewing Mirror Telescope (SMT), Coded-mask, LYSO, Multi-anode photo multipliers, Detector module (DM)

Electronic versions:

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<http://arxiv.org/abs/1106.3802>

<http://www.ihep.ac.cn/english/conference/icrc2011/paper/>

Relations

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INTEGRAL/JEM-X sees Markarian 817

We report the detection of an X-ray source in JEM-X mosaic images of the field observed during the INTEGRAL public Target of Opportunity on SN2011fe, that took place between 2011 October 7, 18:10 (UTC) and November 6, 5:22 (UTC). The source position is determined at RA, Dec = 219.075, +58.792 deg. with an uncertainty of 1.5 arcmin, at only 33 arcsec from the SIMBAD position for the Seyfert 1.5 galaxy Markarian 817, for which an X-ray luminosity increase in recent years has been reported (Winter et al., 2011, ApJ 728, 28). Though the detection is close to the sensitivity limit of the instruments, the source is clearly visible in independent mosaic images from each unit of the twin JEM-X monitor. Combining the whole 400 ks dataset for both JEM-X units the source is detected at 8 sigma between 3-10 keV with an average flux of 0.7 +/- 0.2 mCrab, or 1.5 e-11 erg/cm2/s. There is no firm detection above 10 keV with a 5-sigma upper limit of 0.4 mCrab between 10-25 keV. The source is not detected by the IBIS/ISGRI camera with a flux upper limit of 0.7 mCrab in the 18-40 keV energy range. No significant variability is detected during the above-mentioned time interval. We conclude that both the position and the flux of the source detected by JEM-X are consistent with its identification with Mrk 817.

General information

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Organisations: Astrophysics, National Space Institute, Commissariat Energie Atomique

Authors: Chenevez, J. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Brandt, S. (Intern), Oxborrow, C. A. (Intern), Iversen, N. E. (Intern), Rodriguez, J. (Ekstern)

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The UFFO (Ultra Fast Flash Observatory) Pathfinder: Science and Mission

Hundreds of gamma-ray burst (GRB) optical light curves have been measured since the discovery of optical afterglows. However, even after nearly 7 years of operation of the Swift Observatory, only a handful of measurements have been made soon (within a minute) after the gamma ray signal. This lack of early observations fails to address burst physics at short time scales associated with prompt emissions and progenitors. Because of this lack of sub-minute data, the characteristics of the rise phase of optical light curve of short-hard type GRB and rapid-rising GRB, which may account for ~30% of all GRB, remain practically unknown. We have developed methods for reaching sub-minute and sub-second timescales in a small spacecraft observatory. Rather than slewing the entire spacecraft to aim the optical instrument at the GRB position, we use rapidly moving mirror to redirect our optical beam. As a first step, we employ motorized slewing mirror telescope (SMT), which can point to the event within 1s, in the UFFO Pathfinder GRB Telescope onboard the Lomonosov satellite to be launched in Nov. 2011. UFFO's sub-minute measurements of the optical emission of dozens of GRB each year will result in a more rigorous test of current internal shock models, probe the extremes of bulk Lorentz factors, provide the first early and detailed measurements of fast-rise GRB optical light curves, and help verify the prospect of GRB as a new standard candle. We will describe the science and the mission of the current UFFO Pathfinder project, and our plan of a full-scale UFFO-100 as the next step.

General information

State: Published

Organisations: National Space Institute, Astrophysics, University of Paris, University of Valencia, University of California at Berkeley, Korea Advanced Institute of Science & Technology, National United University, Ewha Womans University, National Taiwan University, Moscow State University, Yonsei University

Authors: Chen, P. (Ekstern), Ahmad, S. (Ekstern), Ahn, K. (Ekstern), Barrillon, P. (Ekstern), Blin-Bondil, S. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. J. (Ekstern), Choi, H. S. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), De La Taille, C. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Hermann, I. (Ekstern), Huang, M. - A. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, S. H. (Ekstern), Kim, Y. W. (Ekstern), Lee, J. (Ekstern), Lim, H. (Ekstern), Linder, E. V. (Ekstern), Liu, T. - (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Nam, K. (Ekstern), Panayuk, M. I. (Ekstern), Park, I. H. (Ekstern), Re-Glero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. F. (Ekstern), Suh, Y. D. (Ekstern), Svelitov, S. (Ekstern), Vedenken, N. (Ekstern), Wang, M. - (Ekstern), Yashin, I. (Ekstern), Zhao, M. (Forskerdatabase)

Number of pages: 5

Publication date: 2011

Event: Paper presented at 32nd International Cosmic Ray Conference, Beijing, China.

Main Research Area: Technical/natural sciences

Gamma Ray Burst

Electronic versions:

6.pdf

Relations

Projects:

The UFFO (Ultra Fast Flash Observatory) Pathfinder: Science and Mission

Source: dtu

Source-ID: n::oai:DTIC-ART:arxiv/372910488::21761

Publication: Research - peer-review > Paper – Annual report year: 2012

Ultra-fast flash observatory for detecting the early photons from gamma-ray bursts

Gamma-ray bursts (GRBs) are the most luminous transient events with short intense flashes that have been detected in random directions in the sky once or twice per day. Their durations have been measured in seconds, especially short GRBs with duration of <2 sec. The Ultra-Fast Flash Observatory (UFFO) space mission aims to detect the earliest moments of an explosion which presents the nature of GRBs, resulting into the enhancement of GRB mechanism understanding. The UFFO consists of a couple of wide Field-of-View (FOV) trigger telescopes, a narrow-FOV Slewing Mirror Telescope (SMT) for the fast measurement of the UV-optical photons from GRBs, and a gamma-ray monitor for energy measurement. The triggering is done by the UFFO burst Alert & Trigger telescope (UBAT) using the hard X-ray from GRBs and the UV/optical Trigger Assistant Telescope (UTAT) using the UV/optical photons from GRBs. The UBAT monitors the sky for GRB, and determines their position with sufficient accuracy ($10'$ at 7.0σ) for follow-up UV/optical observations with the SMT. The primary trigger telescope is based on a fast recognition of position using hard X-ray from GRBs. Whereas the fastest previous experiment, the SWIFT observatory, rarely observed GRB in less than 60 seconds after trigger, the UFFO is designed to begin the UV/optical observations in less than a few seconds after trigger. The SMT uses the novel approach of steering our telescope beam using the rotatable mirror, instead of re-orienting the instrument platform like SWIFT and other previous instruments. The UFFO pathfinder is scheduled to launch into orbit on 2011 November by the Lomonosov spacecraft. This pathfinder is the scaled-down version of UFFO in order to make the first systematic study of early UV/optical light curves, including the rise phase of GRBs. It contains two instruments of UBAT and SMT. It only allows the payload mass of 20 kg and the power consumption of 20 W. The SMT has a fast rotatable mirror, a modified Ritchey-Chrétien telescope with the aperture size of 10 cm diameter, and an image intensifier readout

by CCD. The UBAT is using a coded-mask aperture for position detection and their X-ray photons are readout by LYSO crystals and Multi-Anode photomultiplier tubes (MAPMTs) with the effective active area size of 191.1 cm². With this design, we expect UBAT to trigger ~44 GRBs/yr and expect SMT to detect ~10 GRBs/yr. © 2011 IEEE.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Ewha Womans University, University of Paris-Sud - University of Paris XI, Yonsei University, Consejo Superior de Investigaciones Cientificas, National Taiwan University, Korea Institute of Industrial Technology, Korea Advanced Institute of Science & Technology, University of Valencia, University of California, Moscow State University

Authors: Lim, H. (Ekstern), Jeong, S. (Ekstern), Ahn, K. (Ekstern), Barrillon, P. (Ekstern), Blin-Bondil, S. (Ekstern), Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Castro-Tirado, A. J. (Ekstern), Chen, P. (Ekstern), Choi, H. (Ekstern), Choi, Y. J. (Ekstern), Connell, P. (Ekstern), Dagoret-Campagne, S. (Ekstern), De La Taille, C. (Ekstern), Eyles, C. (Ekstern), Grossan, B. (Ekstern), Hermann, I. (Ekstern), Huang, M. A. (Ekstern), Jeong, S. (Ekstern), Jung, A. (Ekstern), Kim, J. E. (Ekstern), Kim, S. (Ekstern), Kim, Y. W. (Ekstern), Lee, J. (Ekstern), Linder, E. V. (Ekstern), Liu, T. (Ekstern), Lund, N. (Intern), Min, K. W. (Ekstern), Na, G. W. (Ekstern), Nam, J. W. (Ekstern), Nam, K. H. (Ekstern), Panasyuk, M. I. (Ekstern), Park, I. H. (Ekstern), Reglero, V. (Ekstern), Rodrigo, J. M. (Ekstern), Smoot, G. (Ekstern), Suh, Y. D. (Ekstern), Svetilov, S. (Ekstern), Vedenkin, N. (Ekstern), Wang, M. (Ekstern), Yashin, I. (Ekstern), Zaho, M. H. (Ekstern)

Number of pages: 4

Publication date: 2011

Event: Paper presented at 2nd International Conference on Space Technology, Athens, Greece.

Main Research Area: Technical/natural sciences

Buildings, Charge coupled devices, Mirrors, Observatories, Optical telescopes, Photomultipliers, Photons, Space flight, Stars, Telescopes, X rays, Gamma rays

DOIs:

10.1109/ICSpT.2011.6064669

Relations

Projects:

Ultra-fast flash observatory for detecting the early photons from gamma-ray bursts

Source: dtu

Source-ID: n::oai:DTIC-ART:compindex/314691524::21760

Publication: Research - peer-review › Paper – Annual report year: 2011

When a Standard Candle Flickers

The Crab Nebula is the only hard X-ray source in the sky that is both bright enough and steady enough to be easily used as a standard candle. As a result, it has been used as a normalization standard by most X-ray/gamma-ray telescopes. Although small-scale variations in the nebula are well known, since the start of science operations of the Fermi Gamma-ray Burst Monitor (GBM) in 2008 August, a ~ 7% (70 mCrab) decline has been observed in the overall Crab Nebula flux in the 15-50 keV band, measured with the Earth occultation technique. This decline is independently confirmed in the ~ 15-50 keV band with three other instruments: the Swift Burst Alert Telescope (Swift /BAT), the Rossi X-ray Timing Explorer Proportional Counter Array (RXTE /PCA), and the Imager on-Board the INTEGRAL Satellite (IBIS). A similar decline is also observed in the ~ 3-15 keV data from the RXTE /PCA and in the 50-100 keV band with GBM, Swift /BAT, and INTEGRAL /IBIS. The pulsed flux measured with RXTE /PCA since 1999 is consistent with the pulsar spin-down, indicating that the observed changes are nebular. Correlated variations in the Crab Nebula flux on a ~ 3 year timescale are also seen independently with the PCA, BAT, and IBIS from 2005 to 2008, with a flux minimum in 2007 April. As of 2010 August, the current flux has declined below the 2007 minimum.

General information

State: Published

Organisations: Astrophysics, National Space Institute, Louisiana State University, NASA Goddard Space Flight Center, Middle East Technical University, University of Alabama, National Space Science and Technology Center, Universities Space Res. Assoc., Max Planck Institute, Los Alamos National Laboratory, European Space Astronomy Centre and European Space Agency, National Institute for Astrophysics, NASA Marshall Space Flight Center

Authors: Wilson-Hodge, C. A. (Ekstern), Cherry, M. L. (Ekstern), Case, G. L. (Ekstern), Baumgartner, W. H. (Ekstern), Beklen, E. (Ekstern), Bhat, P. N. (Ekstern), Briggs, M. S. (Ekstern), Camero-Arranz, A. (Ekstern), Chaplin, V. (Ekstern), Connaughton, V. (Ekstern), Finger, M. H. (Ekstern), Gehrels, N. (Ekstern), Greiner, J. (Ekstern), Jahoda, K. (Ekstern), Jenke, P. (Ekstern), Kippen, R. M. (Ekstern), Kouveliotou, C. (Ekstern), Krimm, H. A. (Ekstern), Kuulkers, E. (Ekstern), Lund, N. (Intern), Meegan, C. A. (Ekstern), Natalucci, L. (Ekstern), Paciesas, W. S. (Ekstern), Preece, R. (Ekstern), Rodi, J. C. (Ekstern), Shaposhnikov, N. (Ekstern), Skinner, G. K. (Ekstern), Swartz, D. (Ekstern), von Kienlin, A. (Ekstern), Diehl, R. (Ekstern), Zhang, X. (Ekstern)

Pages: L40

Publication date: 2011

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal Letters

Volume: 727

Issue number: 2

ISSN (Print): 2041-8213

Ratings:

Web of Science (2017): Indexed Yes

Scopus rating (2016): CiteScore 4.45

Web of Science (2016): Indexed yes

Scopus rating (2015): CiteScore 4.33

Web of Science (2015): Indexed yes

Scopus rating (2014): CiteScore 4.34

Web of Science (2014): Indexed yes

Scopus rating (2013): CiteScore 4.18

ISI indexed (2013): ISI indexed no

Web of Science (2013): Indexed yes

Scopus rating (2012): CiteScore 3.93

ISI indexed (2012): ISI indexed no

Scopus rating (2011): CiteScore 5.85

ISI indexed (2011): ISI indexed no

Original language: English

X-rays: individual (Crab Nebula), Pulsars: individual (Crab Pulsar)

Electronic versions:

plugin-2041-8205_727_2_L40.pdf

DOIs:

10.1088/2041-8205/727/2/L40

Source: orbit

Source-ID: 274410

Publication: Research - peer-review › Journal article – Annual report year: 2011

A photospheric radius-expansion burst observed from XTE J1701-407 by INTEGRAL: an update on distance

On 2010-08-22 00:56:19 the INTEGRAL Burst Alert System (IBAS) triggered on an event ((GCN 11132, Gotz & Ferrigno, 2009) from the known burst source XTE J1701-407 (Falanga et al., A&A 496, 333, 2009; Linares et al., MNRAS 392, L11, 2009) during an observation of the field around SNR RXJ1713.7-3946 (PI R. Terrier). As part of our monitoring of long thermonuclear X-ray bursts with INTEGRAL, we have analysed both the JEM-X and ISGRI data covering this event, and we identify it as another type I (thermonuclear) X-ray burst. The duration of the burst was about 3 minutes (3-30 keV), with an exponential decay time of 118s. The peak flux was about 4 Crab ($1e-7$ erg/cm²/s) in the 3-30 keV energy band (JEM-X) and 0.35 Crab ($3.4 e-9$ erg/cm²/s) in the 18-40 keV band (IBIS/ISGRI). The JEM-X light curve shows evidence for photospheric radius expansion, with a 2s precursor starting about 4s before the main burst. The time resolved spectral analysis of the burst allows us to measure the unabsorbed bolometric peak flux of $(1.5 \pm 0.2)e-7$ erg/cm²/s. Assuming that the burst reached the empirically-measured Eddington limit of $L_{\text{Edd}}=3.8e38$ erg/s (Kuulkers et al.2003), we derive the distance to the source to be 5.0 ± 0.4 kpc, which is slightly lower than the previous estimated distance of 6.2 kpc by Falanga et al. (2009). Recent RXTE PCA monitoring observations of 4U 1701-407 (see also Markwardt et al. ATel #1569) indicate that the source is beginning a new outburst. Indeed, we estimate the source flux in the hour preceding the burst to be $(2.1 \pm 0.3)e-9$ erg/cm²/s extrapolated between 0.3-100 keV. At the source distance this translates to a persistent bolometric luminosity of about $6.3e36$ erg/s, which is close to the luminosity ($8.3e36$ erg/s) the source had at the moment of its previous long burst (Falanga et al., 2009). Light curves of the burst can be obtained from the following address: ftp://ftp.spacecenter.dk/pub/Jerome/Science/XTE_J1701-407/

General information

State: Published

Organisations: National Space Institute, Astrophysics, ISSI, Monash University, European Space Agency, McGill University, Michigan State University, University of Geneva

Authors: Chenevez, J. (Intern), Maurizio, F. (Ekstern), Brandt, S. K. (Intern), Galloway, D. (Ekstern), Kuulkers, E. (Ekstern), Cumming, A. (Ekstern), Schatz, H. (Ekstern), Lund, N. (Intern), Oosterbroek, T. (Ekstern), Ferrigno, C. (Ekstern)

Pages: #2814

Publication date: 2010

Main Research Area: Technical/natural sciences

Publication information

Journal: The Astronomer's Telegram

Original language: English

Links:

<http://www.astronomerstelegam.org/?read=2814>

Source: orbit

Source-ID: 266198

Publication: Research › Journal article – Annual report year: 2010

Improved JEM-X imaging

A new imaging method has been developed for JEM-X. The flux from each sky pixel is obtained from a fit to the observed shadowgram rather than from a back projected image. The fitting method is more direct than the standard back projection method used in the public OSA software and allows better possibilities for elimination of systematic image artifacts. An improvement of more than a factor two for the signal-to-noise of weak sources in mosaic images has been obtained at low energies near strong sources.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lund, N. (Intern), Westergaard, N. J. S. (Intern), Chenevez, J. (Intern), Brandt, S. (Intern)

Number of pages: 5

Publication date: 2010

Conference: 8th INTEGRAL Workshop , Dublin, Ireland, 27/09/2010 - 27/09/2010

Main Research Area: Technical/natural sciences

Publication information

Journal: P o S - Proceedings of Science

ISSN (Print): 1824-8039

Ratings:

ISI indexed (2013): ISI indexed no

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ISI indexed (2011): ISI indexed no

Original language: English

Electronic versions:

INTEGRAL 2010_070.pdf

Source: dtu

Source-ID: u::5955

Publication: Research - peer-review › Journal article – Annual report year: 2010

JEM-X: six years in space

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Brandt, S. K. (Intern), Chenevez, J. (Intern), Oxborrow, C. A. (Intern), Rasmussen, I. L. (Intern)

Pages: 141

Publication date: 2009

Main Research Area: Technical/natural sciences

Publication information

Journal: P o S - Proceedings of Science

ISSN (Print): 1824-8039

Ratings:

ISI indexed (2013): ISI indexed no

ISI indexed (2012): ISI indexed no

ISI indexed (2011): ISI indexed no

Original language: English

Electronic versions:

JEM-X - Six years in space Carl Budtz-Jorgensen.pdf

Source: orbit

Source-ID: 250888

Publication: Research - peer-review › Journal article – Annual report year: 2009

INTEGRAL monitoring of unusually long X-ray bursts

Thermonuclear bursts on the surface of accreting neutron stars in low mass X-ray binaries have been studied for many years and have in a few cases confirmed theoretical models of nuclear ignition and burning mechanisms. The large majority of X-ray bursts last less than 100s. A good number of the known X-ray bursters are frequently observed by INTEGRAL, in particular in the frame of the Key Programmes. Taking advantage of the INTEGRAL instrumentation, an international collaboration led by the JEM-X team at the Danish National Space Institute has been monitoring the occurrence of uncommon burst events lasting more than a few minutes. Of special interest are exceptional X-ray bursts which duration about a few tens of minutes is intermediate between usual short bursts and hour long superbursts. The processes driving such long bursts are not yet fully understood: depending on the composition of the accreted material, these bursts may be explained by either the unstable burning of a large pile of mixed hydrogen and helium, or the ignition of a thick pure helium layer. Long duration bursts are particularly expected at very low accretion rates and make possible to study the transition from a hydrogen-rich bursting regime to a pure helium regime. Moreover, a handful of long bursts have shown, before the extended decay phase, an initial spike similar to a normal short X-ray burst. Such twofold bursts might be a sort of link between short and super-bursts, where the premature ignition of a carbon layer could be triggered by the helium flash. Half of the 15 intermediate long bursts known to date have been observed by INTEGRAL, and the mechanisms up to high energies of these unusual events have been investigated. Observation results will be presented that lead to an advanced description of the relationship between bursting regimes and the accretion states of the system, as described by the current burst theory.

General information

State: Published

Organisations: Astrophysics, National Space Institute, University Paris Diderot - Paris 7, McGill University, European Space Astronomy Centre and European Space Agency

Authors: Chenevez, J. (Intern), Falanga, M. (Ekstern), Cumming, A. (Ekstern), Kuulkers, E. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern)

Publication date: 2008

Publication information

Original language: English

Main Research Area: Technical/natural sciences

Links:

<http://conferences.dtu.dk/conferenceDisplay.py?confId=20>

Source: orbit

Source-ID: 234031

Publication: Research › Sound/Visual production (digital) – Annual report year: 2008

INTEGRAL monitoring of unusually long X-ray bursts

X-ray bursts are thermonuclear explosions on the surface of accreting neutron stars in X-ray binaries. As most of the known X-ray bursters are frequently observed by INTEGRAL, an international collaboration have been taking advantage of its instrumentation to specifically monitor the occurrence of exceptional burst events lasting more than ~10 minutes. Half of the dozen so-called intermediate long bursts registered so far have been observed by INTEGRAL. The goal is to derive a comprehensive picture of the relationship between the nuclear ignition processes and the accretion states of the system leading up to such long bursts. Depending on the composition of the accreted material, these bursts may be explained by either the unstable burning of a large pile of mixed hydrogen and helium, or the ignition of a thick pure helium layer. Intermediate long bursts are particularly expected to occur at very low accretion rates and make possible to study the transition from a hydrogen-rich bursting regime to a pure helium regime.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Chenevez, J. (Intern), Falanga, M. (Ekstern), Kuulkers, E. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Cumming, A. (Ekstern)

Publication date: 2008

Host publication information

Title of host publication: Proceedings of the 7th INTEGRAL workshop

Publisher: Proceedings of Science

Main Research Area: Technical/natural sciences

Conference: The 7th INTEGRAL Workshop : An INTEGRAL view of compact objects, Copenhagen, Denmark, 01/01/2008

Links:

http://pos.sissa.it/archive/conferences/067/033/Integral08_033.pdf

Relations

Activities:

The 7th INTEGRAL Workshop (External organisation)

Source: orbit
Source-ID: 265763
Publication: Research › Article in proceedings – Annual report year: 2008

A JEM-X catalog of X-ray sources

The JEM-X catalog of X-ray sources presented here is based on detections in individual science windows with a sensitivity limit of about 10 mCrab (5-15 keV). It contains 127 sources and only those that can be identified from the existing reference catalog. The input data are taken from the, up to now, similar to 300 INTEGRAL orbits with public data.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Westergaard, N. J. S. (Intern), Chenevez, J. (Ekstern), Lund, N. (Intern), Budtz-Jørgensen, C. (Intern), Brandt, S. K. (Intern)
Pages: 275-278
Publication date: 2007

Host publication information

Title of host publication: 6TH INTEGRAL WORKSHOP: THE OBSCURED UNIVERSE
Volume: 622
Publisher: ESA PUBLICATIONS DIVISION C/O ESTEC
Main Research Area: Technical/natural sciences
Conference: The 6th INTEGRAL Workshop, Moscow, Russian Federation, 02/07/2006 - 02/07/2006

Relations

Activities:
The 6th INTEGRAL Workshop
Source: orbit
Source-ID: 237900
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Evidence of 1122 Hz X-ray burst oscillations from the neutron star X-ray transient XTE J1739-285

We report on millisecond variability from the X-ray transient XTE J1739-285. We detected six X-ray type I bursts and found evidence for oscillations at 1122 +/- 0.3 Hz in the brightest X-ray burst. Taking into consideration the power in the oscillations and the number of trials in the search, the detection is significant at the 99.96% confidence level. If the oscillations are confirmed, the oscillation frequency would suggest that XTE J1739-285 contains the fastest rotating neutron star yet found. We also found millisecond quasi-periodic oscillations in the persistent emission with frequencies ranging from 757 to 862 Hz. Using the brightest burst, we derive an upper limit on the source distance of about 10.6 kpc.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Kaaret, P. (Ekstern), Prieskorn, Z. (Ekstern), in 't Zand, J. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern), Mereghetti, S. (Ekstern), Gotz, D. (Ekstern), Kuulkers, E. (Ekstern), Tomsick, J. (Ekstern)
Pages: L97-L100
Publication date: 2007
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal
Volume: 657
Issue number: 2
ISSN (Print): 0004-637X
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 5.26
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 4.8
Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 4.57
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 4.85
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 5.51
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 5.46
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2003): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
stars : individual (XTE J1739-285), accretion, accretion disks, gravitation, X-rays : stars, relativity, stars : neutron
Source: orbit
Source-ID: 205058
Publication: Research - peer-review › Journal article – Annual report year: 2007

IGR J17254-3257, a new bursting neutron star

Aims. The study of the observational properties of uncommonly long bursts from low luminosity sources is important when investigating the transition from a hydrogen - rich bursting regime to a pure helium regime and from helium burning to carbon burning as predicted by current burst theories. On a few occasions X-ray bursts have been observed with extended decay times up to several tens of minutes, intermediate between usual type I X-ray bursts and so-called superbursts. **Methods.** IGR J17254-3257 is a recently discovered X-ray burster of which only two bursts have been recorded: an ordinary short type I X-ray burst, and a 15 min long burst. The properties of the X-ray bursts observed from IGR J17254-3257 are investigated. The broad-band spectrum of the persistent emission in the 0.3-100 keV energy band is studied using contemporaneous INTEGRAL and XMM-Newton data. **Results.** A refined position of IGR J17254-3257 is given and an upper limit to its distance is estimated to about 14.5 kpc. The persistent bolometric flux of 1.1×10^{-10} erg cm^{-2} s^{-1} corresponds, at the canonical distance of 8 kpc, to L -pers approximate to 8.4×10^{35} erg s^{-1} between 0.1-100 keV, which translates to a mean accretion rate of about 7×10^{-11} M_{\odot} yr^{-1} . **Conclusions.** The low X-ray persistent luminosity of IGR J17254-3257 seems to indicate the source may be in a state of low accretion rate usually associated with a hard spectrum in the X-ray range. The nuclear burning regime may be intermediate between pure He and mixed H/He burning. The long burst is the result of the accumulation of a thick He layer, while the short one is a premature H-triggered He burning burst at a slightly lower accretion rate.

General information

State: Published

Organisations: Astrophysics, National Space Institute, Commissariat a l'Energie Atomique, European Space Astronomy Centre and European Space Agency, INTEGRAL Science Data Center, University of California, European Space Agency

Authors: Chenevez, J. (Intern), Falanga, M. (Ekstern), Kuulkers, E. (Ekstern), Walter, R. (Ekstern), Bildsten, L. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern), Oosterbroek, T. (Ekstern), Heras, J. Z. (Ekstern)

Pages: L27-L30

Publication date: 2007

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 469

Issue number: 1

ISSN (Print): 0004-6361

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Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes

Scopus rating (2001): SJR 1.555 SNIP 0.727

Web of Science (2001): Indexed yes

Scopus rating (2000): SJR 2.178 SNIP 1.039

Web of Science (2000): Indexed yes

Scopus rating (1999): SJR 2.489 SNIP 1.076

Original language: English

X-rays : bursts, stars : individual : IGR J17254-3257 (1RXS J172525.5-325717), binaries : close, stars : neutron
DOIs:

10.1051/0004-6361:20077494

Source: orbit

Source-ID: 205048

Publication: Research - peer-review › Journal article – Annual report year: 2007

INTEGRAL observations of the cosmic X-ray background in the 5-100 keV range via occultation by the Earth

Aims. We study the spectrum of the cosmic X-ray background (CXB) in energy range similar to 5-100 keV. **Methods.** Early in 2006 the INTEGRAL observatory performed a series of four 30 ks observations with the Earth disk crossing the field of view of the instruments. The modulation of the aperture flux due to occultation of extragalactic objects by the Earth disk was used to obtain the spectrum of the Cosmic X-ray Background (CXB). Various sources of contamination were evaluated, including compact sources, Galactic Ridge emission, CXB reflection by the Earth atmosphere, cosmic ray induced emission by the Earth atmosphere and the Earth auroral emission. **Results.** The spectrum of the cosmic X-ray background in the energy band 5-100 keV is obtained. The shape of the spectrum is consistent with that obtained previously by the HEAO-1 observatory, while the normalization is similar to 10% higher. This difference in normalization can (at least partly) be traced to the different assumptions on the absolute flux from the Crab Nebulae. The increase relative to the earlier adopted value of the absolute flux of the CXB near the energy of maximum luminosity (20-50 keV) has direct implications for the energy release of supermassive black holes in the Universe and their growth at the epoch of the CXB origin.

General information

State: Published

Organisations: Astrophysics, National Space Institute, Cognitive Systems, Department of Informatics and Mathematical Modeling

Authors: Churazov, E. (Ekstern), Sunyaev, R. (Ekstern), Revnivtsev, M. (Ekstern), Sazonov, S. (Ekstern), Molkov, S. (Ekstern), Grebenev, S. (Ekstern), Winkler, C. (Ekstern), Parmar, A. (Ekstern), Bazzano, A. (Ekstern), Falanga, M. (Ekstern), Gros, A. (Ekstern), Lebrun, F. (Ekstern), Natalucci, L. (Ekstern), Ubertini, P. (Ekstern), Roques, J. (Ekstern), Bouchet, L. (Ekstern), Jourdain, E. (Ekstern), Knodlseder, J. (Ekstern), Diehl, R. (Ekstern), Budtz-Jørgensen, C. (Intern), Brandt, S. K. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Neronov, A. (Ekstern), Turler, M. (Ekstern), Chernyakova, M. (Ekstern), Walter, R. (Ekstern), Produit, N. (Ekstern), Mowlavi, N. (Ekstern), Mas-Hesse, J. (Ekstern), Domingo, A. (Ekstern), Gehrels, N. (Ekstern), Kuulkers, E. (Ekstern), Kretschmar, P. (Ekstern), Schmidt, M. (Ekstern)

Pages: 529-540

Publication date: 2007

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 467

Issue number: 2

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes

Scopus rating (2001): SJR 1.555 SNIP 0.727

Web of Science (2001): Indexed yes

Scopus rating (2000): SJR 2.178 SNIP 1.039

Web of Science (2000): Indexed yes

Scopus rating (1999): SJR 2.489 SNIP 1.076

Original language: English

X-rays : diffuse background, Earth, galaxies : active, X-rays : general

DOIs:

10.1051/0004-6361:20066230

Source: orbit

Source-ID: 205050

Publication: Research - peer-review › Journal article – Annual report year: 2007

A persistent high-energy flux from the heart of the Milky Way: Integral's view of the Galactic center

Highly sensitive imaging observations of the Galactic center (GC) at high energies with an angular resolution of order 100 is a very recent development in the field of high-energy astrophysics. The IBIS/ISGRI imager on the INTEGRAL observatory detected for the first time a hard X-ray source, IGR J17456 - 2901, located within 10' of Sagittarius A* (Sgr A*) over the energy range 20 - 100 keV. Here we present the results of a detailed analysis of approximately 7×10^6 s of observations of the GC obtained since the launch of INTEGRAL in 2002 October. Two years and an effective exposure of 4: 7; 106 s have allowed us to obtain more stringent positional constraints on this high-energy source and to construct its spectrum in the range 20 - 400 keV. Furthermore, by combining the ISGRI spectrum with the total X-ray spectrum corresponding to the same physical region around Sgr A* from XMM-Newton data collected during part of the gamma-ray observations, we constructed and present the first accurate wideband high-energy spectrum for the central arcminutes of the Galaxy. Our complete and updated analysis of the emission properties of the INTEGRAL source shows that it is faint but persistent with no variability above 3 sigma, contrary to what was alluded to in our first paper. This result, in conjunction with the spectral characteristics of the soft and hard X-ray emission from this region, suggests that the source is most likely not pointlike but rather that it is a compact yet diffuse nonthermal emission region. The centroid of IGR J17456 - 2901 is estimated to be R.A. = 17(h)45(m)42.(s)5, decl. = -28 degrees 59'28" (J2000.0), offset by 1' from the radio position of Sgr A* and with a positional uncertainty of 1'. Its 20 - 400 keV luminosity at 8 kpc is $L = (5.37 \pm 0.21) \times 10^{35}$ ergs s⁻¹. A 3 sigma upper limit on the flux at the electron-positron annihilation energy of 511 keV from the

direction of Sgr A* is set at 1.9×10^{-4} photons $\text{cm}^{-2} \text{s}^{-1}$. Very recently, the HESS collaboration presented the detection of a source of similar to TeV gamma-rays also located within an arcminute of Sgr A*. We present arguments in favor of an interpretation that the photons detected by INTEGRAL and HESS arise from the same compact region of diffuse emission near the central black hole and that the supernova remnant Sgr A East could play an important role as a contributor of very high energy gamma-rays to the overall spectrum from this region. There is also evidence for hard emission from a region located between the central black hole and the radio arc near l similar to 0.degrees 1 along the Galactic plane and known to contain giant molecular clouds.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Belanger, G. (Ekstern), Goldwurm, A. (Ekstern), Renaud, M. (Ekstern), Terrier, R. (Ekstern), Melia, F. (Ekstern), Lund, N. (Intern), Paul, J. (Ekstern), Skinner, G. (Ekstern), Yusef-Zadeh, F. (Ekstern)

Pages: 275-289

Publication date: 2006

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal

Volume: 636

Issue number: 1

ISSN (Print): 0004-637X

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 5.26

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): CiteScore 4.8

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): CiteScore 4.57

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): CiteScore 4.85

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): CiteScore 5.51

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): CiteScore 5.46

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Web of Science (2008): Indexed yes

Web of Science (2007): Indexed yes

Web of Science (2006): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2003): Indexed yes

Web of Science (2002): Indexed yes

Web of Science (2001): Indexed yes

Web of Science (2000): Indexed yes

Original language: English

Galaxy : center, black hole physics, X-rays : general, X-rays : binaries, Galaxy : nucleus, stars : neutron

Source: orbit

Source-ID: 205101

Publication: Research - peer-review › Journal article – Annual report year: 2006

Fast X-ray transient, IGR J17464-2811 detected with INTEGRAL

A fast X-ray transient, possibly a Type-I X-ray burster has been discovered in public INTEGRAL data. The burst occurred at 07:55:33 (UTC) on March 22, 2005, and was detected in the JEM-X X-ray monitor. The position of the source, designated IGR J17464-2811, was determined in the 3-30 keV energy interval to be RA = 266.810 deg, DEC = -28.185 (J2000), with a 90% error radius of 1 arcmin. In the 3-8 keV band the burst showed a fast rise and an exponential decay with a time constant of about 70 seconds. In the 8-30 keV band the burst showed a gradual rise over 25 seconds followed by an exponential decay with a time constant of about 30 seconds, indicating a spectral softening characteristic of Type-I X-ray bursters. The burst reached a peak flux of 1.0 Crab in the JEM-X 3-30 keV band. The outburst was also clearly detected and localized with ISGRI up to 30 keV. 10 weak sources are found within the JEM-X error circle in the XMM 2XMMp and Chandra CXOGCR catalogs.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Chenevez, J. (Intern), Lund, N. (Intern), Oxborrow, C. A. (Intern), Westergaard, N. J. S. (Intern)

Number of pages: 1

Pages: ATel #970

Publication date: 2006

Main Research Area: Technical/natural sciences

Publication information

Journal: The Astronomer's Telegram : ATel

Original language: English

Electronic versions:

ATEL_970.pdf

Links:

<http://www.astronomerstelegram.org/?read=970>

Source: dtu

Source-ID: u::6822

Publication: Research › Journal article – Annual report year: 2006

INTEGRAL detection of SWIFT J2037.2+4151

The source detected by SWIFT (ATEL #853) was independently found in archived JEM-X public data in 5 pointings covering 18200s between 2004-07-19, 19:14 UTC and 2004-07-20, 03:27 UTC. Positioned within 1.2 degrees of Cyg X-3 it has been inside the JEM-X field-of-view more than 400 times with an off-axis angle less than 4 deg between 2002-12-16 and 2005-05-14. The search shows no firm detection except on the date mentioned above. The emission around 2004-07-19, 19:44 UTC can be fit by a powerlaw spectrum with a photon index of 2.0+0.1 where the intensity reached 25 mCrab decreasing over the next 6 hours. (The source was observed only intermittently due to INTEGRAL dither pointings.) A search using OSA5.1 software in the ISGRI images from the same period in the 20 - 30 keV range showed no sign of the source. The source position was best determined in the 4 - 15 keV energy interval to be RA = 309.264 deg, DEC = 41.833 (J2000) with a 90% error radius of 1.1 arcmin.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Chenevez, J. (Intern), Lund, N. (Intern), Brandt, S. (Intern), Oxborrow, C. A. (Intern)

Number of pages: 1

Pages: ATel #967

Publication date: 2006

Main Research Area: Technical/natural sciences

Publication information

Journal: The Astronomer's Telegram : ATel

Original language: English

Electronic versions:

ATel #967_ INTEGRAL detection of SWIFT J2037.pdf

Links:

<http://www.astronomerstelegam.org/?read=967>

Source: dtu

Source-ID: u.:6823

Publication: Research › Journal article – Annual report year: 2006

INTEGRAL pointed observation of XTEJ1817-330

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Goldoni, P. (Ekstern), Kuulkers, E. (Ekstern), Rodriguez, J. (Ekstern), Shaw, S. E. (Ekstern), Dubath, P. (Ekstern), Chenevez, J. (Ekstern), Lund, N. (Intern), Goldwurm, A. (Ekstern), Bel, M. C. (Ekstern), Del Santo, M. (Ekstern), Ubertini, P. (Ekstern), Bazzano, A. (Ekstern), Winkler, C. (Ekstern)

Publication date: 2006

Main Research Area: Technical/natural sciences

Publication information

Journal: The Astronomer's Telegram

Volume: 742

Original language: English

Source: orbit

Source-ID: 207948

Publication: Research › Journal article – Annual report year: 2006

JEM-X catalog of X-ray sources

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Westergaard, N. J. S. (Intern), Chenevez, J. (Intern), Lund, N. (Intern), Budtz-Jørgensen, C. (Intern), Brandt, S. K. (Intern)

Publication date: 2006

Host publication information

Title of host publication: Proceedings of the 6th INTEGRAL Workshop

Main Research Area: Technical/natural sciences

Conference: The 6th INTEGRAL Workshop, Moscow, Russian Federation, 02/07/2006 - 02/07/2006

Source: orbit

Source-ID: 207985

Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

JEM-X: three years in space

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Brandt, S. K. (Intern), Oxborrow, C. A. (Intern), Chenevez, J. (Intern), Rasmussen, I. L. (Intern), Laursen, S. (Intern), Pedersen, S. M. (Intern), Polny, J. (Intern), Kretschmar, P. (Ekstern), Vilhu, O. (Ekstern), Feroci, M. (Ekstern), Frontera, F. (Ekstern), Juchnikowski, G. (Ekstern), Reglero, V. (Ekstern), Martínez-Núñez, S. (Ekstern), Larsson, S. (Ekstern), Zdziarski, A. (Ekstern), Fahmy, S. (Ekstern)

Publication date: 2006

Host publication information

Title of host publication: Space Telescopes and Instrumentation II: Ultraviolet to Gamma Ray

Editors: Turner, M. J. L., Hasinger, G.

Series: Proceedings of SPIE, the International Society for Optical Engineering

Volume: 6266

ISSN: 0277-786X

Main Research Area: Technical/natural sciences

Conference: SPIE, 01/01/2006

Source: orbit
Source-ID: 205829
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Refined position of IGR J08408-4503 by JEM-X on INTEGRAL

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Gotz, D. (Ekstern), Schanne, S. (Ekstern), Rodriguez, J. (Ekstern), von Kienlin, A. (Ekstern)
Pages: 1
Publication date: 2006
Main Research Area: Technical/natural sciences

Publication information

Journal: The Astronomer's Telegram
Volume: 817
Original language: English
Source: orbit
Source-ID: 205824
Publication: Research › Journal article – Annual report year: 2006

Two-phase X-ray burst from GX 3+1 observed by INTEGRAL

INTEGRAL detected on August 31, 2004, an unusual thermonuclear X-ray burst from the low-mass X-ray binary GX 3+1. Its duration was 30 min, which is between the normal burst durations for this source (less than or similar to 10 s) and the superburst observed in 1998 (several hours). We see emission up to 30 keV energy during the first few seconds of the burst where the bolometric peak luminosity approaches the Eddington limit. This peculiar burst is characterized by two distinct phases: an initial short spike of similar to 6 s consistent with being similar to a normal type I X-ray burst, followed by a remarkable extended decay of cooling emission. We discuss three alternative schemes to explain its twofold nature: 1) unstable burning of a hydrogen/helium layer involving an unusually large amount of hydrogen; 2) pure helium ignition at an unusually large depth (unlikely in the present case); and 3) limited carbon burning at an unusually shallow depth triggered by unstable helium ignition. Though none of these provide a satisfactory description of this uncommon event, the former one seems the most probable.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Chenevez, J. (Intern), Falanga, M. (Ekstern), Brandt, S. (Intern), Farinelli, R. (Ekstern), Frontera, F. (Ekstern), Goldwurm, A. (Ekstern), in't Zand, J. (Ekstern), Kuulkers, E. (Ekstern), Lund, N. (Intern)
Pages: L5-L8
Publication date: 2006
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 449
Issue number: 1
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
X-rays : bursts, stars : individual : GX 3+1, binaries : close, stars : neutron
Source: orbit
Source-ID: 205093
Publication: Research › Letter – Annual report year: 2006

Two years of INTEGRAL monitoring of the soft gamma-ray repeater SGR 1806-20: from quiescence to frenzy

SGR 1806-20 has been observed for more than 2 years with the INTEGRAL satellite. In this period the source went from a quiescent state into a very active one culminating in a giant flare on December 27, 2004. Here we report on the properties of all the short bursts detected with INTEGRAL before the giant flare. We derive their number-intensity distribution and confirm the hardness-intensity correlation for the bursts found by Gotz et al. (2004a, A&A, 417, L45). Our sample includes a very bright outburst that occurred on October 5, 2004, during which over one hundred bursts were emitted in 10 minutes, involving an energy release of 3×10^{42} erg. We present a detailed analysis of it and discuss our results in the framework of the magnetar model.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gotz, D. (Ekstern), Mereghetti, S. (Ekstern), Molkov, S. (Ekstern), Hurley, K. (Ekstern), Mirabel, I. (Ekstern), Sunyaev, R. (Ekstern), Weidenspointner, G. (Ekstern), Brandt, S. K. (Intern), Del Santo, M. (Ekstern), Feroci, M. (Ekstern)

, Gogus, E. (Ekstern), von Kienlin, A. (Ekstern), van der Klis, M. (Ekstern), Kouveliotou, C. (Ekstern), Lund, N. (Intern), Pizzichini, G. (Ekstern), Ubertini, P. (Ekstern), Winkler, C. (Ekstern), Woods, P. (Ekstern)

Pages: 313-321

Publication date: 2006

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 445

Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, stars : pulsars : general, stars : pulsars : individual : SGR 1806-20, gamma rays : observations
Source: orbit
Source-ID: 205103
Publication: Research - peer-review › Journal article – Annual report year: 2006

X-ray bursts observed with JEM-X

We report on the search for X-ray bursts in the JEM-X X-ray monitor on INTEGRAL during the first two years of operations. More than 350 bursts from 25 different type-I X-ray burst sources were found.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Brandt, S. K. (Intern), Chenevez, J. (Intern), Lund, N. (Intern), Budtz-Jørgensen, C. (Intern), Westergaard, N. J. S. (Intern)
Pages: 441-443
Publication date: 2006

Host publication information

Title of host publication: ESA SP-622
Volume: 622
Publisher: ESA PUBLICATIONS DIVISION C/O ESTEC
Main Research Area: Technical/natural sciences
Conference: The 6th INTEGRAL Workshop, Moscow, Russian Federation, 02/07/2006 - 02/07/2006

Relations

Activities:
The 6th INTEGRAL Workshop
Source: orbit
Source-ID: 208351
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

X-ray observations of SN 1006 with INTEGRAL

The remnant of the supernova of 1006 AD, the remnant first showing evidence for the presence of X-ray synchrotron emission from shock-accelerated electrons, was observed for similar to 1000 ks with INTEGRAL in order to study electron acceleration to very high energies. The aim of the observation was to characterize the synchrotron emission and attempt to detect nonthermal bremsstrahlung using the combination of IBIS and JEM-X spatial and spectral coverage. The source was detected with JEM-X between the 2.4 and 8.4 keV bands and was not detected with either ISGRI or SPI above 20 keV. The ISGRI upper limit is about a factor of 4 above current model predictions, but confirms the presence of steepening in the power law extrapolated from lower energies (

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Kalemci, E. (Ekstern), Reynolds, S. (Ekstern), Boggs, S. (Ekstern), Lund, N. (Intern), Chenevez, J. (Intern), Renaud, M. (Ekstern), Rho, J. (Ekstern)
Pages: 274-278
Publication date: 2006
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal
Volume: 644
Issue number: 1
ISSN (Print): 0004-637X
Ratings:
BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 5.26
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 4.8
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 4.57
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 4.85
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 5.51
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 5.46
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2003): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
X-rays : ISM, supernova remnants, ISM : individual (SN 1006), radiation mechanisms : nonthermal
Source: orbit
Source-ID: 205083
Publication: Research - peer-review › Journal article – Annual report year: 2006

An "ESA-affordable" Laue-lens

With ESA's INTEGRAL mission gamma-ray astronomy has advanced to the point where major scientific advances must be expected from detailed studies of the many new point sources. The interest in developing focusing telescopes operating in the soft gamma-ray regime up to 1 MeV is therefore mounting rapidly. Telescopes based on Laue diffraction of gamma-rays from crystals appear as one promising route, although the practical difficulties of realizing a large scale Laue lens are certainly not small. In this paper I have attempted to develop an optimized lens design considering the size and mass constraints of a specific medium size launch vehicle. The introduction of the lens mass as a primary design driver has some surprising effects for the choice of material for the crystals and new tradeoff considerations are introduced.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern)
Pages: 211-217
Publication date: 2005

Main Research Area: Technical/natural sciences

Publication information

Journal: Experimental Astronomy

Volume: 20

Issue number: 1-3

ISSN (Print): 0922-6435

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 2.14

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 2.3

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 2.26

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 2.28

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 1.8

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 1.92

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Web of Science (2008): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2001): Indexed yes

Original language: English

gamma-ray astronomy, instrumentation

Source: orbit

Source-ID: 205061

Publication: Research - peer-review › Journal article – Annual report year: 2005

JEM-X Scientific Analysis: Science Validation Report: Version 5.0

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Westergaard, N. J. S. (Intern), Oxborrow, C. A. (Intern), Chenevez, J. (Intern), Lund, N. (Intern), Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Kretschmar, P. (Ekstern), Larsson, S. (Ekstern), Martinez-Nunez, S. (Ekstern)

Publication date: 2005

Publication information

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 207576

Publication: Research - peer-review › Report – Annual report year: 2005

Unveiling the nature of the new transient IGR J19140+0951

IGR J19140+0951 was discovered during the first observation campaign of the famous microquasar GRS1915+105 (PI Hannikainen) by INTEGRAL IBIS/ISGRI instrument. The source, which is 1 degrees from GRS1915+105 (corrected position), shows high variations of its X-ray luminosity and spectral variations on timescales from seconds to hours. According to the early INTEGRAL (AO1) and further RXTE (AO8 and AO9) observations and regarding the spectral behavior and the timescale variability, we propose the source to be a galactic X-ray binary probably hosting a neutron star.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Cabanac, C. (Ekstern), Rodriguez, J. (Ekstern), Petrucci, P. (Ekstern), Henri, G. (Ekstern), Hannikainen, D. (Ekstern), Schultz, J. (Ekstern), Lund, N. (Intern), Durouchoux, P. (Ekstern)

Pages: 93-98

Publication date: 2005

Main Research Area: Technical/natural sciences

Publication information

Journal: Chinese Journal of Astronomy and Astrophysics

Volume: 5

ISSN (Print): 1009-9271

Ratings:

Scopus rating (2011): SJR 0.33 SNIP 0.75

Scopus rating (2010): SJR 0.625 SNIP 0.706

Scopus rating (2009): SJR 0.561 SNIP 0.42

BFI (2008): BFI-level 1

Scopus rating (2008): SJR 0.476 SNIP 0.394

Scopus rating (2007): SJR 0.415 SNIP 0.325

Scopus rating (2006): SJR 0.48 SNIP 0.587

Scopus rating (2005): SJR 0.381 SNIP 0.107

Web of Science (2005): Indexed yes

Web of Science (2003): Indexed yes

Original language: English

X-rays : IGR J19140+0951, Gamma-rays : observations, X-rays : binaries

Links:

<http://www.chjaa.org/2005/Microquasar/15-p93.pdf>

Source: orbit

Source-ID: 205102

Publication: Research - peer-review › Journal article – Annual report year: 2005

XRED: a satellite mission concept to detect early universe gamma ray bursts

Gamma ray bursts (GRBs) are the most energetic eruptions known in the Universe. Instruments such as Compton-GRO/BATSE and the GRB monitor on BeppoSAX have detected more than 2700 GRBs and, although observational confirmation is still required, it is now generally accepted that many of these bursts are associated with the collapse of rapidly spinning massive stars to form black holes. Consequently, since first generation stars are expected to be very massive, GRBs are likely to have occurred in significant numbers at early epochs. X-red is a space mission concept designed to detect these extremely high redshifted GRBs, in order to probe the nature of the first generation of stars and hence the time of reionisation of the early Universe. We demonstrate that the gamma and x-ray luminosities of typical GRBs render them detectable up to extremely high redshifts ($z \sim 10$ to 30), but that current missions such as HETES and SWIFT operate outside the observational range for detection of high redshift GRB afterglows. Therefore, to redress this, we present a complete mission design from the science case to the mission architecture and payload, the latter comprising three instruments, namely wide field x-ray cameras to detect high redshift gamma-rays, an x-ray focussing telescope to determine accurate coordinates and extract spectra, and an infrared spectrograph to observe the high redshift optical afterglow. The mission is expected to detect and identify for the first time GRBs with $z > 10$, thereby providing constraints on properties of the first generation of stars and the history of the early Universe.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Krumpe, M. (Ekstern), Coffey, D. (Ekstern), Egger, G. (Ekstern), Vilardell, F. (Ekstern), Lefever, K. (Ekstern), Liermann, A. (Ekstern), Hoffmann, A. I. (Ekstern), Steiper, J. (Ekstern), Cherix, M. (Ekstern), Albrecht, S. (Ekstern), Russo, P. (Ekstern), Strodl, T. (Ekstern), Wahlin, R. (Ekstern), Deroo, P. (Ekstern), Parmar, A. (Ekstern), Lund, N. (Intern), Hasinger, G. (Ekstern)

Publication date: 2005

Host publication information

Title of host publication: UV, X-Ray, and Gamma-Ray Space Instrumentation for Astronomy XIV

Volume: 14

Editor: Siegmund, O. H. W.

Series: Proc. of SPIE

Number: 5897

Main Research Area: Technical/natural sciences

Conference: UV, X-Ray, and Gamma-Ray Space Instrumentation for Astronomy XIV, San Diego, CA, USA, 01/01/2005

DOIs:

10.1117/12.616601

Links:

<http://spiedl.aip.org/getabs/servlet/GetabsServlet?prog=normal&id=PSISDG0058980000158981J000001&idtype=cvips&gifs=yes>

Source: orbit

Source-ID: 208621

Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

A JEM-X Survey for Weak Sources

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Chenevez, J. (Intern), Brandt, S. (Intern), Kretschmar, P. (Ekstern), Walter, R. (Ekstern), Larsson, S. (Ekstern), Maisala, S. (Ekstern), Huovelin, J. (Ekstern)

Number of pages: 6

Pages: 153-

Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe

Place of publication: Munich

Publisher: European Space Agency, ESA

Editors: Schönfelder, V., Lichti, G., Winkler, C.

ISBN (Print): 92-9092-863-8

Main Research Area: Technical/natural sciences

Conference: The 5th INTEGRAL Workshop, München, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Compact sources as the origin of the soft gamma-ray emission of the Milky Way

The Milky Way is known to be an abundant source of gamma-ray photons(1), now determined to be mainly diffuse in nature and resulting from interstellar processes(2). In the soft gamma-ray domain, point sources are expected to dominate, but the lack of sensitive high-resolution observations did not allow for a clear estimate of the contribution from such sources(3,4). Even the best imaging experiment(5) revealed only a few point sources, accounting for about 50% of the total Galactic flux(6). Theoretical studies were unable to explain the remaining intense diffuse emission(7,8). Investigating the origin of the soft gamma-rays is therefore necessary to determine the dominant particle acceleration processes and to gain insights into the physical and chemical equilibrium of the interstellar medium(7). Here we report observations in the soft gamma-ray domain that reveal numerous compact sources. We show that these sources account for the entirety of the Milky Way's emission in soft gamma-rays, leaving at most a minor role for diffuse processes.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lebrun, F. (Ekstern), Terrier, R. (Ekstern), Bazzano, A. (Ekstern), Belanger, G. (Ekstern), Bird, A. (Ekstern), Bouchet, L. (Ekstern), Dean, A. (Ekstern), Del Santo, M. (Ekstern), Goldwurm, A. (Ekstern), Lund, N. (Intern), Morand, H. (Ekstern), Parmar, A. (Ekstern), Paul, J. (Ekstern), Roques, J. (Ekstern), Schonfelder, V. (Ekstern), Strong, A. (Ekstern), Ubertini, P. (Ekstern), Walter, R. (Ekstern), Winkler, C. (Ekstern)

Pages: 293-296

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: Nature

Volume: 428

Issue number: 6980

ISSN (Print): 0028-0836

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 13.33

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): CiteScore 14.38

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): CiteScore 14.22

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): CiteScore 14.96

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): CiteScore 14.01

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): CiteScore 13.96

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Web of Science (2008): Indexed yes

Web of Science (2007): Indexed yes

Web of Science (2006): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2003): Indexed yes

Web of Science (2002): Indexed yes

Web of Science (2001): Indexed yes

Web of Science (2000): Indexed yes

Original language: English

Source: orbit

Source-ID: 205144

Publication: Research - peer-review › Journal article – Annual report year: 2004

Correcting for the Unexpected: Dead Anodes, Glitches, Hotspots and Gain Drift in JEM-X Data Processing

General information

State: Published

Organisations: National Space Institute, Astrophysics, INTEGRAL Science Data Center

Authors: Oxborrow, C. A. (Intern), Lund, N. (Intern), Brandt, S. (Intern), Chenevez, J. (Intern), Budtz-Jørgensen, C. (Intern), Westergaard, N. J. S. (Intern), Rasmussen, I. L. (Intern), Kretschmar, P. (Ekstern)
Number of pages: 4
Pages: 879-
Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe
Place of publication: Munich
Publisher: European Space Agency, ESA
Editors: Schönfelder, V., Lichti, G., Winkler, C.
ISBN (Print): 92-9092-863-8
Main Research Area: Technical/natural sciences
Conference: The 5th INTEGRAL Workshop , München, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Source: dtu

Source-ID: u::6810

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Detection of hard X-ray emission from the Galactic nuclear region with INTEGRAL

This Letter presents the first results of an observational campaign to study the Galactic center with INTEGRAL, the International Gamma-Ray Astrophysics Laboratory. Mosaicked images were constructed using data obtained with ISGRI, the soft gamma-ray instrument of the coded aperture IBIS imager, in the energy ranges 20 - 40 and 40 - 100 keV. These give a yet unseen view of the high-energy sources of this region in hard X-rays and gamma rays with an angular resolution of 12' (FWHM). We report on the discovery of a source, IGR J1745.6 - 2901, coincident with the Galactic nucleus Sgr A* to within 0'.9. Located at R.A. = 17(h)45(m)38(s).5 (J2000.0), decl. = -29degrees01'15"(J2000.0), the source is visible up to about 100 keV with a 20 - 100 keV luminosity at 8 kpc of $(2.89 \pm 0.41) \times 10^{35}$ ergs s⁻¹. Although the new INTEGRAL source cannot unequivocally be associated to the Galactic nucleus, this is the first report of significant hard X-ray emission from within the inner 10' of the Galaxy and a contribution from the Galactic supermassive black hole itself cannot be excluded.

General information

State: Published

Organisations: Energy Engineering, Department of Mechanical Engineering, Astrophysics, National Space Institute
Authors: Belanger, G. (Ekstern), Goldwurm, A. (Ekstern), Goldoni, P. (Ekstern), Paul, J. (Intern), Terrier, R. (Ekstern), Falanga, M. (Ekstern), Ubertini, P. (Ekstern), Bazzano, A. (Ekstern), Del Santo, M. (Ekstern), Winkler, C. (Ekstern), Parmar, A. (Ekstern), Kuulkers, E. (Ekstern), Ebisawa, K. (Ekstern), Roques, J. (Ekstern), Lund, N. (Intern), Melia, F. (Ekstern)

Pages: L163-L166

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal

Volume: 601

Issue number: 2

ISSN (Print): 0004-637X

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 5.26

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): CiteScore 4.8

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): CiteScore 4.57

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 4.85
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 5.51
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 5.46
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2003): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
gamma rays : observations, Galaxy : center, black hole physics, X-rays : binaries, Galaxy : nucleus, stars : neutron
Source: orbit
Source-ID: 205147
Publication: Research - peer-review › Journal article – Annual report year: 2004

Discovery of a new INTEGRAL source: IGR J19140+0951

IGR J19140+0951 (formerly known as IGR J19140+098) was discovered with the INTEGRAL satellite in March 2003. We report the details of the discovery, using an improved position for the analysis. We have performed a simultaneous study of the 5-100 keV JEM-X and ISGRI spectra from which we can distinguish two different states. From the results of our analysis we propose that IGR J19140+0951 is a persistent Galactic X-ray binary, probably hosting a neutron star although a black hole cannot be completely ruled out.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Hannikainen, D. (Ekstern), Rodriguez, J. (Ekstern), Cabanac, C. (Ekstern), Schultz, J. (Ekstern), Lund, N. (Intern), Vilhu, O. (Ekstern), Petrucci, P. (Ekstern), Henri, G. (Ekstern)
Pages: L17-L20
Publication date: 2004
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 423
Issue number: 2
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
X-rays : IGR J19140+0951, gamma-rays : observations, X-rays : binaries
Source: orbit
Source-ID: 205130
Publication: Research - peer-review › Journal article – Annual report year: 2004

GRS 1915+105: The First Three Months with INTEGRAL

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Hannikainen, D. C. (Ekstern), Vilhu, O. (Ekstern), Rodriguez, J. (Ekstern), Westergaard, N. J. S. (Intern), Shaw, S. (Ekstern), Pooley, G. G. (Ekstern), Belloni, T. (Ekstern), Zdziarski, A. A. (Ekstern), Hunstead, R. W. (Ekstern), Wu, K. (Ekstern), Brandt, S. (Intern), Castro-Tirado, A. (Ekstern), Charles, P. A. (Ekstern), Dean, A. J. (Ekstern), Durouchoux, P. (Ekstern), Fender, R. P. (Ekstern), Hakala, P. (Ekstern), Kaiser, C. R. (Ekstern), King, A. R. (Ekstern), Lund, N. (Intern), Mirabel, I. F. (Ekstern), Poutanen, J. (Ekstern)

Number of pages: 7

Pages: 299-

Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe

Place of publication: Munich

Publisher: European Space Agency, ESA

Editors: Schönfelder, V., Lichti, G., Winkler, C.

ISBN (Print): 92-9092-863-8

Main Research Area: Technical/natural sciences

Conference: The 5th INTEGRAL Workshop , München, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

High-Energy Behaviour of the BHC IGR J17464-3213

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Capitanio, F. (Ekstern), Kretschmar, K. (Ekstern), Ubertini, P. (Ekstern), Barlow, E. J. (Ekstern), Bazzano, A. (Ekstern), Brandt, S. (Intern), Bouchet, L. (Ekstern), Budtz-Jørgensen, C. (Intern), Cadolle Bel, M. (Ekstern), Castro-Tirado, A. (Ekstern), Dean, A. J. (Ekstern), De Cesare, G. (Ekstern), Del Santo, M. (Ekstern), Farinelli, R. (Ekstern), Frontera, F. (Ekstern), Gehrels, N. (Ekstern), Goldoni, P. (Ekstern), Goldwurm, A. (Ekstern), Huovelin, J. (Ekstern), Lund, N. (Intern), Mirabel, F. (Ekstern), Natalucci, L. (Ekstern), Piraino, S. (Ekstern), Reglero, V. (Ekstern), Roques, J. P. (Ekstern), Tarana, A. (Ekstern), Vilhu, O. (Ekstern), Westergaard, N. J. S. (Intern), Zdziarski, A. A. (Ekstern)

Number of pages: 4

Pages: 313-

Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe

Place of publication: Munich

Publisher: European Space Agency, ESA

Editors: Schönfelder, V., Lichti, G., Winkler, C.

ISBN (Print): 92-9092-863-8

Main Research Area: Technical/natural sciences

Conference: The 5th INTEGRAL Workshop , München, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Integral detection of hard X-ray emission from the Galactic nuclear region

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Belanger, G. (Ekstern), Goldwurm, A. (Ekstern), Goldoni, P. (Ekstern), Paul, J. (Ekstern), Terrier, R. (Ekstern), Falanga, M. (Ekstern), Ubertini, P. (Ekstern), Bazzano, A. (Ekstern), Del Santo, M. (Ekstern), Winkler, C. (Ekstern), Parmar, A. (Ekstern), Kuulkers, E. (Ekstern), Ebisawa, K. (Ekstern), Roques, J. (Ekstern), Lund, N. (Intern), Melia, F. (Ekstern)

Pages: L163-L166

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal

Volume: 601

ISSN (Print): 0004-637X

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 5.26

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): CiteScore 4.8

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): CiteScore 4.57

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): CiteScore 4.85

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): CiteScore 5.51

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): CiteScore 5.46

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Web of Science (2008): Indexed yes

Web of Science (2007): Indexed yes

Web of Science (2006): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2003): Indexed yes

Web of Science (2002): Indexed yes

Web of Science (2001): Indexed yes

Web of Science (2000): Indexed yes

Original language: English

Source: orbit

Source-ID: 206820

Publication: Research - peer-review › Journal article – Annual report year: 2004

INTEGRAL observation of 3EG J1736-2908

The possible identification by INTEGRAL of the EGRET source 3EG J1736-2908 with the active galactic nucleus GRS 1734-292 is discussed. The latter was discovered in 1990 and later identified with a Seyfert 1 galaxy. At the time of the compilation of the 3rd EGRET Catalog, it was not considered as a possible counterpart of the source 3EG J1736-2908, which remained unidentified. A detailed multiwavelength study of the EGRET error circle is presented, by including archival radio, soft- and hard-X observations, suggesting that GRS 1734-292 could be a likely counterpart of 3EG J1736-2908, even though this poses very interesting questions about the production mechanisms of gamma-rays with energies greater than 100 MeV.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Di Cocco, G. (Ekstern), Foschini, L. (Ekstern), Grandi, P. (Ekstern), Malaguti, G. (Ekstern), Castro-Tirado, A. (Ekstern), Chaty, S. (Ekstern), Dean, A. (Ekstern), Grenier, I. (Ekstern), Hermsen, W. (Ekstern), Kuiper, L. (Ekstern), Lund, N. (Intern), Mirabel, F. (Ekstern)

Pages: 89-93

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 425

Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes

Scopus rating (2001): SJR 1.555 SNIP 0.727

Web of Science (2001): Indexed yes

Scopus rating (2000): SJR 2.178 SNIP 1.039

Web of Science (2000): Indexed yes

Scopus rating (1999): SJR 2.489 SNIP 1.076

Original language: English

gamina-rays : observations, X-rays : galaxies, galaxies : individual : GRS 1734-292, galaxies : active

Source: orbit

Source-ID: 205124

Publication: Research - peer-review › Journal article – Annual report year: 2004

JEM-X: The X-ray monitor on INTEGRAL

The INTEGRAL X-ray monitor, JEM-X, (together with the two gamma ray instruments, SPI and IBIS) provides simultaneous imaging with arcminute angular resolution in the 3-35 keV band. The good angular resolution and low energy response of JEM-X plays an important role in the detection and identification of gamma ray sources as well as in the analysis and scientific interpretation of the combined X-ray and gamma ray data. JEM-X is a coded aperture X-ray telescope consisting of two identical detectors. Each detector has a sensitive area of 500 cm², and views the sky through its own coded aperture mask. The coded masks are located 3.4 m above the detector windows. The detector field of view is constrained by X-ray collimators (6.6degrees FOV, FWHM).

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Brandt, S. K. (Intern), Hornstrup, A. (Intern), Rasmussen, I. L. (Intern), Laursen, S. (Intern), Pedersen, S. (Ekstern), Kristensen, R. (Ekstern), Mogensen, P. (Ekstern), Andersen, K. (Ekstern), Rasmussen, I. L. (Intern), Polny, J. (Intern), Jensen, P. A. (Intern), Oxborrow, C. A. (Intern), Chenevez, J. (Intern), Omoe, K. (Ekstern), Kämäräinen, V. (Ekstern), Andersson, T. B. (Intern), Vilhu, O. (Ekstern), Huovelin, J. (Ekstern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Rubini, A. (Ekstern), Morelli, E. (Ekstern), Morbidini, A. (Ekstern), Frontera, F. (Ekstern), Pellicciari, C. (Ekstern), Loffredo, G. (Ekstern), Zavattini, G. (Ekstern), Carassiti, V. (Ekstern), Morawski, M. (Ekstern), Juchnikowski, G. (Ekstern), Reglero, V. (Ekstern), Peris, J. (Ekstern), Collado, V. (Ekstern), Rodirgo, J. (Ekstern), Perez, F. (Ekstern), Requena, J. (Ekstern), Larsson, S. (Ekstern), Svensson, R. (Ekstern), Zdziarski, A. (Ekstern), Castro-Tirado, A. (Ekstern), Schnopper, H. (Ekstern)

Pages: 139-150

Publication date: 2004

Host publication information

Title of host publication: X-ray and Gamma-ray Instrumentation for Astronomy XIII

Editors: Flanagan, K. A., Siegmund, O. H. W.

ISBN (Print): 0-8194-5038-3

Series: Proceedings of SPIE, the International Society for Optical Engineering

Volume: 5165

ISSN: 0277-786X

Main Research Area: Technical/natural sciences

Conference: X-ray and Gamma-ray Instrumentation for Astronomy XIII, San Diego, CA, United States, 03/08/2003 - 03/08/2003

JEM-X, INTEGRAL, X-ray astronomy, micro strip detector

DOIs:

10.1117/12.506791

Source: orbit

Source-ID: 206865

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Long duration X-ray burst from GX 3+1

During an observation of the Galactic Center the JEM-X instrument on INTEGRAL detected an unusually long X-ray burst from GX 3+1. The burst began on August 31 at 18:57 UTC

After an precursor spike lasting 7 s where the burst reached a flux of about 2000 mCrab in the 4 to 20 keV band the flux fell to around 500 mCrab and then decayed with an e-folding time of about 700 s. This burst appear as intermediate between the normal type-I X-ray bursts (e-folding times up to a few tens of seconds) and the very long "superbursts" (e-folding times of several hours).

Prior to the outburst the source flux was about 150 mCrab.

Follow-up observations are encouraged.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Lund, N. (Intern), Chenevez, J. (Intern), Budtz-Jørgensen, C. (Intern), Goldoni, P. (Ekstern), Belanger, G. (Ekstern), Goldwurm, A. (Ekstern), Kuulkers, E. (Ekstern)

Number of pages: 1

Pages: ATel #327

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: The Astronomer's Telegram : ATel

Original language: English

Electronic versions:

8.pdf

Links:

<http://www.astronomerstelegram.org/?read=327>

Source: dtu

Source-ID: u:6818

Publication: Research › Journal article – Annual report year: 2004

Performance of JEM-X on INTEGRAL

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lund, N. (Intern), Budtz-Jørgensen, C. (Intern), Oxborrow, C. A. (Intern), Chenevez, J. (Intern), Brandt, S. (Intern), Rasmussen, I. L. (Intern), Westergaard, N. J. S. (Intern)

Number of pages: 6

Pages: 723-

Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe

Place of publication: Munich

Publisher: European Space Agency, ESA

Editors: Schönfelder, V., Lichti, G., Winkler, C.

ISBN (Print): 92-9092-863-8

Main Research Area: Technical/natural sciences

Conference: The 5th INTEGRAL Workshop , München, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Search for GRBs and X-Ray Flashes in the X-Ray Monitor on INTEGRAL

General information

State: Published

Organisations: National Space Institute, Astrophysics, INTEGRAL Science Data Center

Authors: Brandt, S. (Intern), Lund, N. (Intern), Produit, N. (Ekstern)

Number of pages: 4

Pages: 633-

Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe

Place of publication: Munich

Publisher: European Space Agency, ESA

Editors: Schönfelder, V., Lichti, G., Winkler, C.
ISBN (Print): 92-9092-863-8
Main Research Area: Technical/natural sciences
Conference: The 5th INTEGRAL Workshop , Munich, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Serpens X-1 observed by INTEGRAL

Here we report results of an INTEGRAL-AO1 observation of the X-ray burst and atoll source Ser X-1 performed in May 2003. The object was observed for a total on-source time of 400 ks but nearly 8degrees off-axis due to its amalgamation with an observation of SS 433, the pointing target source. Ser X-1 has been clearly detected up to 30 keV with unprecedented positional accuracy for high-energy emission. The 20-30 keV light curve showed substantial variability during the observation. Comparison with previous observations indicates that the source was in its high ("banana") state and displayed a soft spectrum during the INTEGRAL pointing. A (non simultaneous) radio-to-gamma-rays broad-band spectral energy distribution is also presented for the first time and discussed.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Masetti, N. (Ekstern), Foschini, L. (Ekstern), Palazzi, E. (Ekstern), Beckmann, V. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern), Westergaard, N. J. S. (Intern), Amati, L. (Ekstern), Caroli, E. (Ekstern), Del Sordo, S. (Ekstern), Di Cocco, G. (Ekstern), Durouchoux, P. (Ekstern), Farinelli, R. (Ekstern), Frontera, F. (Ekstern), Orlandini, M. (Ekstern), Zdziarski, A. (Ekstern)

Pages: 651-656

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 423

Issue number: 2

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
X-rays : individuals : Ser X-1, X-rays : binaries, stars : neutron
Source: orbit
Source-ID: 205131
Publication: Research - peer-review › Journal article – Annual report year: 2004

The INTEGRAL View of the Soft Gamma-Ray Repeater SGR 1806-20

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Götz, D. (Ekstern), Mereghetti, S. (Ekstern), Mirabel, I. F. (Ekstern), Hurley, K. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Ubertini, P. (Ekstern), Del Santo, M. (Ekstern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Kretschmar, P. (Ekstern), Castro-Tirado, A. (Ekstern), Gimenez, A. (Ekstern), Atteia, J. (Ekstern), Boer, M. (Ekstern), Cline, T. (Ekstern), Frontera, F. (Ekstern), Pizzichini, G. (Ekstern), von Kienlin, A. (Ekstern), Gögüs, E. (Ekstern), Kouveliotou, C. (Ekstern), Finger, M. (Ekstern), Thompson, C. (Ekstern), Pedersen, H. (Ekstern), van der Klis, M. (Ekstern)

Number of pages: 8

Pages: 615-

Publication date: 2004

Host publication information

Title of host publication: Proceedings of the 5th INTEGRAL Workshop on the INTEGRAL Universe

Place of publication: Munich

Publisher: European Space Agency, ESA

Editors: Schönfelder, V., Lichti, G., Winkler, C.

ISBN (Print): 92-9092-863-8

Main Research Area: Technical/natural sciences

Conference: The 5th INTEGRAL Workshop , München, Germany, 16/02/2004 - 16/02/2004

Relations

Activities:

The 5th INTEGRAL Workshop

Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

The potential of INTEGRAL for the detection of high redshift GRBs

We discuss INTEGRAL's ability to detect a high redshift population of Gamma-Ray Bursts (GRBs) in comparison to other high-energy missions. Emphasis is placed on the study of the relative capabilities of IBIS on board INTEGRAL with respect to SWIFT and HETE 2 in detecting a high redshift population of GRBs. We conclude that, if the GRB rate is proportional to the star formation rate, INTEGRAL's ability to study GRBs are complementary to the ones of missions like SWIFT and HETE 2, devoted to prompt localisations of GRBs. Whereas SWIFT and HETE 2 would detect a higher number of GRBs than INTEGRAL, IBIS might be able to detect high redshift (z greater than or similar to 7) GRBs, unreachable by SWIFT and HETE 2. We discuss the relevance of performing near-infrared (NIR) observations of the INTEGRAL GRBs and the strategy that large-class telescopes might follow.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern), Westergaard, N. J. S. (Intern), Ceron, J. (Ekstern)

Pages: 87-93

Publication date: 2004

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 427

Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts
Source: orbit
Source-ID: 205123
Publication: Research - peer-review › Journal article – Annual report year: 2004

A multi-colour study of the dark GRB 000210 host galaxy and its environment

We present UBVRIzJshKs broad band photometry of the host galaxy of the dark gamma-ray burst (GRB) of February 10, 2000. These observations represent the most exhaustive photometry given to date of any GRB host galaxy. A grid of spectral templates have been fitted to the Spectral Energy Distribution (SED) of the host. The derived photometric redshift is $z = 0.842(-0.042)(+0.014)$, which is in excellent agreement with the spectroscopic redshift ($z = 0.8463 \pm 0.0002$) proposed by Piro et al. (2002) based on a single emission line. Furthermore, we have determined the photometric redshift of all the galaxies in an area of $6' \times 6'$ around the host galaxy, in order to check for their overdensity in the environment of the host. We find that the GRB 000210 host galaxy is a subluminal galaxy (L similar to $0.5 \pm 0.2 L^*$), with no companions above our detection threshold of $0.18 \pm 0.06 L^*$. Based on the restframe ultraviolet flux a star formation rate of $2.1 \pm 0.2 M_\odot \text{ yr}^{-1}$ is estimated. The best fit to the SED is obtained for a starburst template with an age of $0.181(-0.026)(+0.037)$ Gyr and a very low extinction (A_V similar to 0). We discuss the implications of the inferred low value of A_V and the age of the dominant stellar population for the non-detection of the GRB 000210 optical afterglow.

General information

State: Published
Organisations: Danish Transport Research Institute, Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Christensen, L. (Ekstern), Hjorth, J. (Ekstern), Fynbo, J. (Ekstern), Pedersen, H. (Intern), Jensen, B. L. (Intern), Andersen, M. (Ekstern), Lund, N. (Intern), Jaunsen, A. (Ekstern), Ceron, J. (Ekstern), Castro-Tirado, A. (Ekstern), Fruchter, A. (Ekstern), Greiner, J. (Ekstern), Pian, E. (Ekstern), Vreeswijk, P. (Ekstern), Burud, I. (Ekstern), Frontera, F. (Ekstern), Kaper, L. (Ekstern), Klose, S. (Ekstern), Kouveliotou, C. (Ekstern), Masetti, N. (Ekstern), Palazzi, E. (Ekstern), Rhoads, J. (Ekstern), Rol, E. (Ekstern), Salamanca, I. (Ekstern), Tanvir, N. (Ekstern), Wijers, R. (Ekstern), van den Heuvel, E. (Ekstern)
Pages: 127-136
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 400
Issue number: 1
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, techniques : photometric, galaxies : fundamental parameters
DOIs:
10.1051/0004-6361:20021907
Source: orbit
Source-ID: 205191
Publication: Research - peer-review › Journal article – Annual report year: 2003

An INTEGRAL ToO Observation of SGR1806-20

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Hurley, K. (Ekstern), Aptekar, R. (Ekstern), Mazets, E. (Ekstern), Golenetskii, S. (Ekstern), Atteia, J. (Ekstern), Boer, M. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern), Cline, T. (Ekstern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Ubertini, P. (Ekstern), Del Santo, M. (Ekstern), Frontera, F. (Ekstern), Pizzichini, G. (Ekstern), Castro-Tirado, A. (Ekstern), Giminez, A. (Ekstern), Winkler, C. (Ekstern), Schoenfelder, V. (Ekstern), von Kienlin, A. (Ekstern), Lichti, G. (Ekstern), Kretschmar, P. (Ekstern), Produit, N. (Ekstern), Mereghetti, S. (Ekstern), Gotz, D. (Ekstern), Mirabel, F. (Ekstern), Woods, P. (Ekstern), Gogus, E. (Ekstern), Kouveliotou, C. (Ekstern), Finger, M. (Ekstern), Thompson, C. (Ekstern), Duncan, R. (Ekstern), Pedersen, H. (Ekstern), Pavlov, G. (Ekstern), van der Klis, M. (Ekstern)

Pages: 1309

Publication date: 2003

Conference: American Astronomical Society Meeting, 01/01/2003

Main Research Area: Technical/natural sciences

Publication information

Journal: Bulletin of the American Astronomical Society

Volume: 35

Original language: English

Source: orbit

Source-ID: 207930

Publication: Research - peer-review › Conference article – Annual report year: 2003

An X-ray perspective on a gamma-ray mission

The most recent astrophysics mission of ESA is INTEGRAL, a mission dedicated to gamma-ray astronomy (Winkler et al. 2003). INTEGRAL carries two gamma-ray instruments: the imager, IBIS, and the spectrometer, SPI, and in addition an optical monitor, OMC, and an X-ray monitor, JEM-X. INTEGRAL is an observatory mission with 70% of the observation time available to the general astronomical community through a peer-reviewed selection process. This paper describes the INTEGRAL mission primarily as seen from the JEM-X perspective.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern)

Pages: 186-192

Publication date: 2003

Main Research Area: Technical/natural sciences

Publication information

Journal: Chinese Journal of Astronomy and Astrophysics

Volume: 3

ISSN (Print): 1009-9271

Ratings:

Scopus rating (2011): SJR 0.33 SNIP 0.75

Scopus rating (2010): SJR 0.625 SNIP 0.706

Scopus rating (2009): SJR 0.561 SNIP 0.42

BFI (2008): BFI-level 1

Scopus rating (2008): SJR 0.476 SNIP 0.394

Scopus rating (2007): SJR 0.415 SNIP 0.325

Scopus rating (2006): SJR 0.48 SNIP 0.587

Scopus rating (2005): SJR 0.381 SNIP 0.107

Web of Science (2005): Indexed yes

Web of Science (2003): Indexed yes

Original language: English

stars : X-ray and gamma-ray sources, techniques : Coded mask telescopes, stars : individual : Crab Nebula

Source: orbit

Source-ID: 205114

Publication: Research - peer-review › Journal article – Annual report year: 2003

Astrophysics with small satellites in Scandinavia

The small-satellites activities in the Scandinavian countries are briefly surveyed with emphasis on astrophysics research. (C) 2002 COSPAR. Published by Elsevier Science Ltd. All rights reserved.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern)
Pages: 341-344
Publication date: 2003

Host publication information

Title of host publication: Small Satellites For Astrophysical Research, the Copernican Principle and Homogeneity of the Universe
Place of publication: Oxford
Publisher: Pergamon-elsevier Science Ltd

Series: Advances in Space Research

Volume: 31

Number: 2

ISSN: 0273-1177

Main Research Area: Technical/natural sciences

Conference: E1 6 and E1 5-H0 2 Symposia of COSPAR Scientific Commission E held at the 33rd COSPAR Scientific Assembly, Warsaw, Poland, 01/07/2000 - 01/07/2000

DOIs:

10.1016/S0273-1177(02)00623-3

Source: orbit

Source-ID: 205193

Publication: Research - peer-review > Article in proceedings – Annual report year: 2003

First INTEGRAL observations of GRS 1915+105

We present data from the first of six monitoring Open Time observations of GRS 1915+105 undertaken with the orbiting INTEGRAL satellite. The source was clearly detected with all three X-ray and gamma-ray instruments on board. GRS 1915+105 was in a highly variable state, as demonstrated by the JEMX-2 and ISGRI lightcurves. These and simultaneous RXTE/PCA lightcurves point to a novel type of variability pattern in the source. In addition, we fit the combined JEM X-2 and ISGRI spectrum between 3-300 keV with a disk blackbody+powerlaw model leading to typical parameter values found earlier at similar luminosity levels. A new transient, IGR J19140+098, was discovered during the present observation.

General information

State: Published
Organisations: Danish Space Research Institute
Authors: Hannikainen, D. (Ekstern), Vilhu, O. (Ekstern), Rodriguez, J. (Ekstern), Brandt, S. (Intern), Westergaard, N. J. S. (Intern), Lund, N. (Intern), Mocour, I. (Ekstern), Durouchoux, P. (Ekstern), Belloni, T. (Ekstern), Castro-Tirado, A. (Ekstern), Charles, P. (Ekstern), Dean, A. (Ekstern), Fender, R. (Ekstern), Feroci, M. (Ekstern), Hakala, P. (Ekstern), Hunstead, R. (Ekstern), Kaiser, C. (Ekstern), King, A. (Ekstern), Mirabel, I. (Ekstern), Pooley, G. (Ekstern), Poutanen, J. (Ekstern), Wu, K. (Ekstern), Zdziarski, A. (Ekstern)
Pages: L415-L419
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 411
Issue number: 1
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
X-rays : GRS 1915+105, X-rays : binaries
DOIs:
10.1051/0004-6361:20031444
Source: orbit
Source-ID: 205167
Publication: Research - peer-review › Journal article – Annual report year: 2003

First results from the INTEGRAL galactic plane scans

Scans of the Galactic plane performed at regular intervals constitute a key element of the guaranteed time observations of the INTEGRAL observing programme. These scans are done for two reasons: frequent monitoring of the Galactic plane in order to detect transient sources, and time resolved mapping of the Galactic plane in continuum and diffuse line emission. This paper describes first results obtained from the Galactic plane scans executed so far during the early phase (Dec. 2002-May 2003) of the nominal mission.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Winkler, C. (Ekstern), Gehrels, N. (Ekstern), Schonfelder, V. (Ekstern), Roques, J. (Ekstern), Strong, A. (Ekstern), Wunderer, C. (Ekstern), Ubertini, P. (Ekstern), Lebrun, F. (Ekstern), Bazzano, A. (Ekstern), Del Santo, M. (Ekstern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Beckmann, V. (Ekstern), Kretschmar, P. (Ekstern), Mereghetti, S. (Ekstern)

Pages: L349-L355

Publication date: 2003

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 411

Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
compact objects, nucleosynthesis, high energy transients
Source: orbit
Source-ID: 205163
Publication: Research - peer-review › Journal article – Annual report year: 2003

Gamma-ray bursts observed by the INTEGRAL-SPI anticoincidence shield: A study of individual pulses and temporal variability

We study a set of 28 GRB light-curves detected between 15 December 2002 and 9 June 2003 by the anti-coincidence shield of the spectrometer (SPI) of INTEGRAL. During this period it has detected 50 bursts, that have been confirmed by other instruments, with a time resolution of 50 ms. First, we derive the basic characteristics of the bursts: various duration measures, the count peak flux and the count fluence. Second, a sub-sample of 11 bursts with 12 individual, well-separated pulses is studied. We fit the pulse shape with a model by Kocevski et al. (2003) and find that the pulses are quite self-similar in shape. There is also a weak tendency for the pulses with steep power-law decays to be more asymmetric. Third, the variability of the complex light-curves is studied by analyzing their power-density-spectra (PDS) and their RMS variability. The averaged PDS, of the whole sample, is a power-law with index of 1.60 ± 0.05 and a break between 1-2 Hz. Fourth, we also discuss the background and noise levels. We found that the background noise has a Gaussian distribution and its power is independent of frequency, i.e., it is white noise. However, it does not follow a Poisson statistic since on average the variance is similar to 1.6 larger than the mean. We discuss our results in context of the current theoretical picture in which GRBs are created in an anisotropic, highly relativistic outflow from collapsing massive stars. Finally, we note that the exact behaviour of the instrument is not yet known and therefore the above results should be treated as preliminary.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Ryde, F. (Ekstern), Borgonovo, L. (Ekstern), Larsson, S. (Ekstern), Lund, N. (Intern), von Kienlin, A. (Ekstern), Lichti, G. (Ekstern)
Pages: L331-L342
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 411
Issue number: 1
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma-rays : bursts, methods : data analysis
Source: orbit
Source-ID: 205161
Publication: Research - peer-review › Journal article – Annual report year: 2003

GRB 030227: The first multiwavelength afterglow of an INTEGRAL GRB

We present multiwavelength observations of a gamma-ray burst detected by INTEGRAL (GRB 030227) between 5.3 hours and similar to 1.7 days after the event. Here we report the discovery of a dim optical afterglow (OA) that would not have been detected by many previous searches due to its faintness (R similar to 23). This OA was seen to decline following a power law decay with index $\alpha(R) = -0.95 \pm 0.16$. The spectral index $\beta(\text{opt/NIR})$ yielded -1.25 ± 0.14 . These values may be explained by a relativistic expansion of a fireball (with $p = 2.0$) in the cooling regime. We also find evidence for inverse Compton scattering in X-rays.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Castro-Tirado, A. (Ekstern), Gorosabel, J. (Ekstern), Guziy, S. (Ekstern), Reverte, D. (Ekstern), Ceron, J. (Ekstern), Postigo, A. (Ekstern), Tanvir, N. (Ekstern), Mereghetti, S. (Ekstern), Tiengo, A. (Ekstern), Buckle, J. (Ekstern), Sagar, R. (Ekstern), Pandey, S. (Ekstern), Mohan, V. (Ekstern), Masetti, N. (Ekstern), Mannucci, F. (Ekstern), Feltzing, S.

(Ekstern), Lundstrom, I. (Ekstern), Pedersen, H. (Intern), Riess, C. (Ekstern), Trushkin, S. (Ekstern), Vilchez, J. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Nunez, S. (Ekstern), Reglero, V. (Ekstern), Perez-Ramirez, M. (Ekstern), Klose, S. (Ekstern), Greiner, J. (Ekstern), Hjorth, J. (Ekstern), Kaper, L. (Ekstern), Pian, E. (Ekstern), Palazzi, E. (Ekstern), Andersen, M. (Ekstern), Fruchter, A. (Ekstern), Fynbo, J. (Ekstern), Jensen, B. L. (Intern), Kouveliotou, C. (Ekstern), Rhoads, J. (Ekstern), Rol, E. (Ekstern), Vreeswijk, P. (Ekstern), Wijers, R. (Ekstern), van den Heuvel, E. (Ekstern)
Pages: L315-L319

Publication date: 2003

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 411

Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, techniques : photometric, cosmology : observations
DOIs:
10.1051/0004-6361:20031393
Source: orbit
Source-ID: 205159
Publication: Research - peer-review › Journal article – Annual report year: 2003

INTEGRAL and XMM-Newton observations of the weak gamma-ray burst GRB 030227

We present International Gamma-Ray Astrophysical Laboratory (INTEGRAL) and XMM-Newton observations of the prompt gamma-ray emission and the X-ray afterglow of GRB 030227, the first gamma-ray burst for which the quick localization obtained with the INTEGRAL Burst Alert System has led to the discovery of X-ray and optical afterglows. GRB 030227 had a duration of about 20 s and a peak flux of similar to $1.1 \text{ photons cm}^{-2} \text{ s}^{-1}$ in the 20-200 keV energy range. The time-averaged spectrum can be fitted by a single power law with photon index similar to 2, and we find some evidence for a hard-to-soft spectral evolution. The X-ray afterglow has been detected starting only 8 hr after the prompt emission, with a 0.2-10 keV flux decreasing as t^{-1} from 1.3×10^{-12} to $5 \times 10^{-13} \text{ ergs cm}^{-2} \text{ s}^{-1}$. The afterglow spectrum is well described by a power law with photon index modified by a 1.94 ± 0.05 redshifted neutral absorber with column density of several 10^{22} cm^{-2} . A possible emission line at 1.67 keV could be due to Fe for a redshift z similar to 3, consistent with the value inferred from the absorption.

General information

State: Published

Organisations: Energy Engineering, Department of Mechanical Engineering, Astrophysics, National Space Institute

Authors: Mereghetti, S. (Ekstern), Gotz, D. (Ekstern), Tiengo, A. (Ekstern), Beckmann, V. (Ekstern), Borkowski, J. (Ekstern), Courvoisier, T. (Ekstern), von Kienlin, A. (Ekstern), Schoenfelder, V. (Ekstern), Roques, J. (Ekstern), Bouchet, L. (Ekstern), Ubertini, P. (Ekstern), Castro-Tirado, A. (Ekstern), Lebrun, F. (Ekstern), Paul, J. (Intern), Lund, N. (Intern), Mas-Hesse, J. (Ekstern), Hermsen, W. (Ekstern), den Hartog, P. (Ekstern), Winkler, C. (Ekstern)

Pages: L73-L77

Publication date: 2003

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal

Volume: 590

Issue number: 2

ISSN (Print): 0004-637X

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 5.26

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): CiteScore 4.8

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): CiteScore 4.57

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): CiteScore 4.85

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 5.51
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 5.46
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2003): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
gamma rays : bursts, X-rays : general
Source: orbit
Source-ID: 205180
Publication: Research - peer-review › Journal article – Annual report year: 2003

JEM-X background models

Background and determination of its components for the JEM-X X-ray telescope on INTEGRAL are discussed. A part of the first background observations by JEM-X are analysed and results are compared to predictions. The observations are based on extensive imaging of background near the Crab Nebula on revolution 41 of INTEGRAL. Total observing time used for the analysis was 216 502 s, with the average of 25 cps of background for each of the two JEM-X telescopes. JEM-X1 showed slightly higher average background intensity than JEM-X2. The detectors were stable during the long exposures, and weak orbital phase dependence in the background outside radiation belts was observed. The analysis yielded an average of 5 cps for the diffuse background, and 20 cps for the instrument background. The instrument background was found highly dependent on position, both for spectral shape and intensity. Diffuse background was enhanced in the central area of a detector, and it decreased radially towards the edge, with a clear vignetting effect for both JEM-X units. The instrument background was weakest in the central area of a detector and showed a steep increase at the very edges of both JEM-X detectors, with significant difference in spatial signatures between JEM-X units. According to our modelling, instrument background dominates over diffuse background in all positions and for all energies of JEM-X.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Huovelin, J. (Ekstern), Maisala, S. (Ekstern), Schultz, J. (Ekstern), Westergaard, N. J. S. (Intern), Oxborrow, C. A. (Intern), Kretschmar, P. (Ekstern), Lund, N. (Intern)
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Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
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Scopus rating (1999): SJR 2.489 SNIP 1.076
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X-ray background, INTEGRAL satellite, X-ray data analysis
Source: orbit
Source-ID: 205157
Publication: Research - peer-review › Journal article – Annual report year: 2003

JEM-X inflight performance

We summarize the inflight performance of JEM-X, the X-ray monitor on the INTEGRAL mission during the initial ten months of operations. The JEM-X instruments have now been tuned to stable operational conditions. The performance is found to be close to the pre-launch expectations. The ground calibrations and the inflight calibration data permit to determine the instruments characteristics to fully support the scientific data analysis.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Westergaard, N. J. S. (Intern), Rasmussen, I. L. (Intern), Andersen, K. (Ekstern), Chenevez, J. (Intern), Hornstrup, A. (Intern), Jensen, P. A. (Intern), Laursen, S. (Intern), Omo, K. (Ekstern), Oxborrow, C. A. (Intern), Pedersen, S. M. (Intern), Polny, J. (Intern), Andersson, H. (Ekstern), Andersson, T. (Ekstern), Vilhu, O. (Ekstern), Huovelin, J. (Ekstern), Maisala, S. (Ekstern), Morawski, M. (Ekstern), Juchnikowski, G. (Ekstern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Rubini, A. (Ekstern), Rapisarda, M. (Ekstern), Morelli, E. (Ekstern), Frontera, F. (Ekstern), Pellicciari, C. (Ekstern), Loffredo, G. (Ekstern), Carassiti, V. (Ekstern), Reglero, V. (Ekstern), Nunez, S. (Ekstern), Larsson, S. (Ekstern), Svensson, R. (Ekstern), Zdziarski, A. (Ekstern), Castro-Tirado, A. (Ekstern), Gorla, M. (Ekstern), Giulianelli, G. (Ekstern), Rezazad, M. (Ekstern), Carli, R. (Ekstern), Jensen, P. L. (Ekstern), Cordero, F. (Ekstern), Schmidt, M. (Ekstern), Sarri, G. (Ekstern), Gomez, C. (Ekstern), Orr, A. (Ekstern), Much, R. (Ekstern), Schnopper, H. (Ekstern), Kretschmar, P. (Ekstern)

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ISI indexed (2012): ISI indexed yes

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Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
instrumentation : detectors, X-rays : general
Source: orbit
Source-ID: 205156
Publication: Research - peer-review › Journal article – Annual report year: 2003

JEM-X observations of the Be/X-ray binary EXO 2030+375

We have used data from the Joint European Monitor (JEM-X) to perform an X-ray spectral and timing analysis of the 42-s transient pulsar EXO 2030+375 during an X-ray outburst. X-ray pulsations are clearly detected with an average pulse period of 41.66 ± 0.05 s and an average pulse fraction of 60%. The profile of the energy spectrum did not change appreciably throughout the X-ray outburst, although the source shows a slightly softer spectrum during periastron passage in the energy range 9-25 keV. The 5-25 keV X-ray luminosity changed by a factor of 2 throughout the observations, reaching a maximum value of 3×10^{36} erg s⁻¹. These observations allowed us to verify the in-flight instrumental properties of the JEM-X Monitor.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Nunez, S. (Ekstern), Reig, P. (Ekstern), Blay, P. (Ekstern), Kretschmar, P. (Ekstern), Lund, N. (Intern), Reglero, V. (Ekstern)
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ISI indexed (2011): ISI indexed yes
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BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
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Scopus rating (2009): SJR 2.879 SNIP 1.404
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Scopus rating (1999): SJR 2.489 SNIP 1.076
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Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern), Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Oxborrow, C. A. (Intern), Brandt, S. K. (Intern), Chenevez, J. (Intern), Rasmussen, I. L. (Intern)

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Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 208124

Publication: Research - peer-review › Report – Annual report year: 2003

JEM-X science analysis software

The science analysis of the data from JEM-X on INTEGRAL is performed through a number of levels including corrections, good time selection, imaging and source finding, spectrum and light-curve extraction. These levels consist of individual executables and the running of the complete analysis is controlled by a script where parameters for detailed settings are introduced. The end products are FITS files with a format compatible with standard analysis packages such as XSPEC.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Westergaard, N. J. S. (Intern), Kretschmar, P. (Ekstern), Oxborrow, C. A. (Intern), Larsson, S. (Ekstern), Huovelin, J. (Ekstern), Maisala, S. (Ekstern), Nunez, S. (Ekstern), Lund, N. (Intern), Hornstrup, A. (Intern), Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Rasmussen, I. L. (Intern)

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Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

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ISI indexed (2012): ISI indexed yes

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BFI (2010): BFI-level 2

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Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
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Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
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Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
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JEM-X: The X-ray monitor aboard INTEGRAL

The JEM-X monitor provides X-ray spectra and imaging with arcminute angular resolution in the 3 to 35 keV band. The good angular resolution and the low energy response of JEM-X plays an important role in the identification of gamma ray sources and in the analysis and scientific interpretation of the combined X-ray and gamma ray data. JEM-X is a coded aperture instrument consisting of two identical, coaligned telescopes. Each of the detectors has a sensitive area of 500 cm², and views the sky through its own coded aperture mask. The two coded masks are inverted with respect to each other and provides an angular resolution of 3' across an effective field of view of about 10degrees diameter.

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Scopus rating (2009): SJR 2.879 SNIP 1.404
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Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
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Source: orbit
Source-ID: 205154
Publication: Research - peer-review › Journal article – Annual report year: 2003

Simultaneous multi-wavelength observations of GRS 1915+105

We present the result of multi-wavelength observations of the microquasar GRS 1915 + 105 in a plateau state with a luminosity of similar to 7.5×10^{38} erg s⁻¹ (similar to 40% L-Edd), conducted simultaneously with the INTEGRAL and RXTE satellites, the ESOstarstar/NTT, the Ryle Telescope, the NRAO(starstarstar) VLA and VLBA, in 2003 April 2-3. For the first time were observed concurrently in GRS 1915 + 105 all of the following properties: a strong steady optically thick radio emission corresponding to a powerful compact jet resolved with the VLBA, bright near-IR emission, a strong QPO at 2.5 Hz in the X-rays and a power law dominated spectrum without any cutoff in the 3-400 keV range.

General information

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Organisations: Department of Microbiology, Astrophysics, National Space Institute

Authors: Fuchs, Y. (Ekstern), Rodriguez, C. J. R. (Intern), Mirabel, I. (Ekstern), Chaty, S. (Ekstern), Ribo, M. (Ekstern), Dhawan, V. (Ekstern), Goldoni, P. (Ekstern), Sizun, P. (Ekstern), Pooley, G. (Ekstern), Zdziarski, A. (Ekstern), Hannikainen, D. (Ekstern), Kretschmar, P. (Ekstern), Cordier, B. (Ekstern), Lund, N. (Intern)

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Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
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Source-ID: 205172
Publication: Research - peer-review › Journal article – Annual report year: 2003

Simultaneous observations of the quasar 3C 273 with INTEGRAL, XMM-Newton and RXTE

INTEGRAL has observed the bright quasar 3C 273 on 3 epochs in January 2003 as one of the first observations of the open programme. The observation on January 5 was simultaneous with RXTE and XMM-Newton observations. We present here a first analysis of the continuum emission as observed by these 3 satellites in the band from similar or equal to 3 keV to similar or equal to 500 keV. The continuum spectral energy distribution of 3C 273 was observed to be weak and steep in the high energies during this campaign. We present the actual status of the cross calibrations between the instruments on the three platforms using the calibrations available in June 2003.

General information

State: Published

Organisations: Astrophysics, National Space Institute, Department of Civil Engineering

Authors: Courvoisier, T. (Ekstern), Beckmann, V. (Ekstern), Bourban, G. (Ekstern), Chenevez, J. (Intern), Chernyakova, M. (Ekstern), Deluit, S. (Ekstern), Favre, P. (Ekstern), Grindlay, J. (Ekstern), Lund, N. (Intern), O'Brien, P. (Ekstern), Page, K. (Ekstern), Produit, N. (Ekstern), Turler, M. (Ekstern), Turner, M. (Ekstern), Staubert, R. (Ekstern), Stuhlinger, M. (Ekstern), Walter, R. (Intern), Zdziarski, A. (Ekstern)

Pages: L343-L348

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Journal: Astronomy & Astrophysics

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Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
quasars : general, gamma-rays : observations, galaxies : active, quasars : individual : 3C 273
Source: orbit
Source-ID: 205162
Publication: Research - peer-review › Journal article – Annual report year: 2003

The blue host galaxy of the red GRB 000418

We report on multi-band (UBVRIZJ(s)K(s)) observations of the host galaxy of the April 18, 2000 gamma-ray burst. The Spectral Energy Distribution (SED) is analysed by fitting empirical and synthetic spectral templates. We find that: (i) the best SED fit is obtained with a starburst template, (ii) the photometric redshift is consistent with the spectroscopic redshift, (iii) the colours of the host are inconsistent with an old stellar population, and (iv) the global extinction is constrained to be in the range $A(V) = 0.12-0.61$ mag. The derived global extinction agrees with the one reported for the afterglow ($A(V) = 0.4-0.9$ mag), suggesting a homogeneous distribution of the interstellar medium (ISM) in the host galaxy. These findings are supplemented by morphological information from Hubble Space Telescope (HST) imaging: the surface brightness profile is smooth, symmetric and compact with no underlying structures (like dust lanes, spiral arms or disks). A natural scenario which accounts of all the above results is a nuclear starburst that harbours a young population of stars from which the GRB originated.

General information

State: Published

Organisations: Danish Transport Research Institute, Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Klose, S. (Ekstern), Christensen, L. (Ekstern), Fynbo, J. (Ekstern), Hjorth, J. (Ekstern), Greiner, J. (Ekstern), Tanvir, N. (Ekstern), Jensen, B. L. (Intern), Pedersen, H. (Intern), Holland, S. (Ekstern), Lund, N. (Intern), Jaunsen, A. (Ekstern), Ceron, J. (Ekstern), Castro-Tirado, A. (Ekstern), Fruchter, A. (Ekstern), Pian, E. (Ekstern), Vreeswijk, P. (Ekstern), Burud, I. (Ekstern), Frontera, F. (Ekstern), Kaper, L. (Ekstern), Kouveliotou, C. (Ekstern), Masetti, N. (Ekstern), Palazzi, E. (Ekstern), Rhoads, J. (Ekstern), Rol, E. (Ekstern), Salamanca, I. (Ekstern), Wijers, R. (Ekstern), van den Heuvel, E. (Ekstern)

Pages: 123-133

Publication date: 2003

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

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Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, techniques : photometric, galaxies : fundamental parameters
DOIs:
10.1051/0004-6361:20031047
Source: orbit
Source-ID: 205174
Publication: Research - peer-review › Journal article – Annual report year: 2003

The INTEGRAL mission

The ESA observatory INTEGRAL (International Gamma-Ray Astrophysics Laboratory) is dedicated to the fine spectroscopy (2.5 keV FWHM @ 1 MeV) and fine imaging (angular resolution: 12 arcmin FWHM) of celestial gamma-ray sources in the energy range 15 keV to 10 MeV with concurrent source monitoring in the X-ray (3-35 keV) and optical (V-band, 550 nm) energy ranges. INTEGRAL carries two main gamma-ray instruments, the spectrometer SPI (Vedrenne et al. 2003)-optimized for the high-resolution gamma-ray line spectroscopy (20 keV-8 MeV), and the imager IBIS (Ubertini et al. 2003)-optimized for high-angular resolution imaging (15 keV-10 MeV). Two monitors, JEM-X (Lund et al. 2003) in the (3-35) keV X-ray band, and OMC (Mas-Hesse et al. 2003) in optical Johnson V-band complement the payload. The ground segment includes the Mission Operations Centre at ESOC, ESA and NASA ground stations, the Science Operations Centre at ESTEC and the Science Data Centre near Geneva. INTEGRAL was launched on 17 October 2002. The observing programme is well underway and sky exposure (until June 2003) reaches similar to 1800 ks in the Galactic plane. The prospects are excellent for the scientific community to observe the high energy sky using state-of-the-art gamma-ray imaging and spectroscopy. This paper presents a high-level overview of INTEGRAL.

General information

State: Published
Organisations: Astrophysics, National Space Institute, Energy Engineering, Department of Mechanical Engineering
Authors: Winkler, C. (Ekstern), Courvoisier, T. (Ekstern), Di Cocco, G. (Ekstern), Gehrels, N. (Ekstern), Gimenez, A. (Ekstern), Grebenev, S. (Ekstern), Hermsen, W. (Ekstern), Mas-Hesse, J. (Ekstern), Lebrun, F. (Ekstern), Lund, N. (Intern), Palumbo, G. (Ekstern), Paul, J. (Intern), Roques, J. (Ekstern), Schnopper, H. (Ekstern), Schonfelder, V. (Ekstern), Sunyaev, R. (Ekstern), Teegarden, B. (Ekstern), Ubertini, P. (Ekstern), Vedrenne, G. (Ekstern), Dean, A. (Ekstern)
Pages: L1-L6
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Main Research Area: Technical/natural sciences

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Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
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BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
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BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
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Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma-ray astronomy, space observatory
Source: orbit
Source-ID: 205152
Publication: Research - peer-review › Journal article – Annual report year: 2003

Time resolved spectroscopy of GRB 030501 using INTEGRAL

The gamma-ray instruments on-board INTEGRAL offer an unique opportunity to perform time resolved analysis on GRBs. The imager IBIS allows accurate positioning of GRBs and broad band spectral analysis, while SPI provides high resolution spectroscopy. GRB 030501 was discovered by the INTEGRAL Burst Alert System in the ISGRI field of view. Although the burst was fairly weak (fluence F_{20-200 keV} similar or equal to 3.5x10⁻⁶ erg cm⁻²) it was possible to perform time resolved spectroscopy with a resolution of a few seconds. The GRB shows a spectrum in the 20-400 keV range which is consistent with a spectral index $\Gamma = -1.8$. No emission line or spectral break was detectable in the spectrum. Although the flux seems to be correlated with the hardness of the GRB spectrum, there is no clear soft to hard evolution seen over the duration of the burst. The INTEGRAL data have been compared with results from the Ulysses and RHESSI experiments.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Beckmann, V. (Ekstern), Borkowski, J. (Ekstern), Courvoisier, T. (Ekstern), Gotz, D. (Ekstern), Hudec, R. (Ekstern), Hroch, F. (Ekstern), Lund, N. (Intern), Mereghetti, S. (Ekstern), Shaw, S. (Ekstern), von Kienlin, A. (Ekstern), Wigger, C. (Ekstern)

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Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, gamma rays : observations
Source: orbit
Source-ID: 205160
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Time resolved spectroscopy of GRB 030501 using INTEGRAL

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Beckmann, V. (Ekstern), Borkowski, J. (Ekstern), Courvoisier, T. J. L. (Ekstern), Götz, D. (Ekstern), Hudec, R. (Ekstern), Hroch, F. (Ekstern), Lund, N. (Intern), Mereghetti, S. (Ekstern), Shaw, S. E. (Ekstern), von Kienlin, A. (Ekstern), Wigger, C. (Ekstern)
Publication date: 2003
Main Research Area: Technical/natural sciences

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BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
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BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
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Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
Source: orbit
Source-ID: 207812
Publication: Research - peer-review › Journal article – Annual report year: 2003

X-ray facility for the ground calibration of the X-ray monitor JEM-X on board INTEGRAL

We describe the X-ray facility developed for the calibration of the X-ray monitor JEM-X on board the INTEGRAL satellite. The apparatus allowed the scanning of the detector geometric area with a pencil beam of desired energy over the major part of the passband of the instrument. The monochromatic radiation is obtained with the use of a double crystal monochromator at fixed exit. We discuss the facility performance.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Loffredo, G. (Ekstern), Pellicciari, C. (Ekstern), Frontera, F. (Ekstern), Carassiti, V. (Ekstern), Chiozzi, S. (Ekstern), Evangelisti, F. (Ekstern), Landi, L. (Ekstern), Melchiorri, M. (Ekstern), Squerzanti, S. (Ekstern), Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Laursen, S. (Intern), Lund, N. (Intern), Polny, J. (Intern), Westergaard, N. J. S. (Intern)
Pages: L239-L242
Publication date: 2003
Main Research Area: Technical/natural sciences

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BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
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Scopus rating (2008): SJR 2.923 SNIP 1.297
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Scopus rating (2007): SJR 2.816 SNIP 1.34
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Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
techniques : miscellaneous, methods : laboratory, instrumentation : detectors, instrumentation : miscellaneous
Source: orbit
Source-ID: 205155
Publication: Research - peer-review › Journal article – Annual report year: 2003

X-ray observations of the Crab Pulsar and Nebula with JEM-X on INTEGRAL

The Crab pulsar is the best studied rotation powered pulsar. We report the results obtained in the 3-35 keV energy band with the X-ray monitor, JEM-X, on ESAs recently launched gamma-ray mission, INTEGRAL.

General information

State: Published

Organisations: INTEGRAL Science Data Center, Space Research Center, European Space Research and Technology Center, Danish Space Research Institute, European Space Operation Center

Authors: Brandt, S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Rasmussen, I. L. (Intern), Laursen, S. (Intern), Chenevez, J. (Intern), Westergaard, N. J. S. (Intern), Juchnikowski, G. (Ekstern), Walter, R. (Ekstern), Schmidt, M. N. (Ekstern), Much, R. (Ekstern)

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Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

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Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

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Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

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Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
pulsars : individual : PSR B0531+21, instrumentation : detectors, X-rays : stars
DOIs:
10.1051/0004-6361:20031255
Source: orbit
Source-ID: 205168
Publication: Research - peer-review › Journal article – Annual report year: 2003

Constraints on the optical afterglow emission of the short/hard burst GRB 010119

We report optical observations of the short/hard burst GRB 010119 error box, one of the smallest error boxes reported to date for short/hard GRBs. Limits of $R > 22.3$ and $I > 21.2$ are imposed by observations carried out 20.31 and 20.58 hours after the gamma-ray event, respectively. They represent the most constraining limits imposed to date on the optical emission from a short/hard gamma-ray burst afterglow.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Andersen, M. (Ekstern), Hjorth, J. (Ekstern), Pedersen, H. (Intern), Jensen, B. L. (Intern), Fynbo, J. (Ekstern), Lehto, H. (Ekstern), Katajainen, S. (Ekstern), Hurley, K. (Ekstern), Lund, N. (Intern)
Pages: 112-117
Publication date: 2002
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 383
Issue number: 1
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, techniques : photometric, methods : observational
DOIs:
10.1051/0004-6361:20011716
Source: orbit
Source-ID: 205224
Publication: Research - peer-review › Journal article – Annual report year: 2002

Focussing soft gamma-rays

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern)
Publication date: 2002

Host publication information

Title of host publication: Proceedings of the conference "Multi Colour Universe"
Editor: Manchanda, R.
Main Research Area: Technical/natural sciences
Conference: Multi Colour Universe, Tata Institute of Fundamental Research, Mumbai, India, 11-14 September, 01/01/2002
Source: orbit
Source-ID: 207461
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

GRB/XRF 020427, detection of an underlying system with the VLT

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Castro-Tirado, A. (Ekstern), Gorosabel, J. (Ekstern), Sanchez-Fernandez, C. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern), Castro Ceron, J. M. (Ekstern)

Publication date: 2002
Main Research Area: Technical/natural sciences

Publication information

Journal: GRB Circular Network
Volume: 1439
Original language: English
Source: orbit
Source-ID: 207406
Publication: Research - peer-review › Journal article – Annual report year: 2002

Integral/JEM-X data and analysis

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Kretschmar, P. (Ekstern), Westergaard, N. J. S. (Intern), Oxborrow, C. A. (Intern), Larsson, S. (Ekstern), Maisala, S. (Ekstern), Huovelin, J. (Ekstern), Hornstrup, A. (Intern), Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern), Rasmussen, I. L. (Intern), Juchnikowski, G. (Ekstern), Morawski, M. (Ekstern), Martinez-Nuñez, S. (Ekstern)
Publication date: 2002

Host publication information

Title of host publication: Proceedins of the XXXVII Rencontres de Moriond
Editors: Goldwurm, A., Neumann, D., Vãn Les Arc, J.
Main Research Area: Technical/natural sciences
Conference: XXXVII Rencontres de Moriond, France, 16-23 March, 01/01/2002
Source: orbit
Source-ID: 206927
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

JEM-X Commissioning and Performance Report

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern), Brandt, S. K. (Intern), Budtz-Jørgensen, C. (Intern), Westergaard, N. J. S. (Intern)
Publication date: 2002

Publication information

Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 207811
Publication: Research - peer-review › Report – Annual report year: 2002

JEM-X FS Ground Calibration at Ferrara (IN-PL-JEM-0008)

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Brandt, S. K. (Intern), Lund, N. (Intern), Frontera, F. (Ekstern), Pellicciari, C. (Ekstern), Loffredo, G. (Ekstern)
Publication date: 2002

Publication information

Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 207809
Publication: Research - peer-review › Report – Annual report year: 2002

JEM-X Science Performance Report

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern)

Publication date: 2002

Publication information

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 207810

Publication: Research - peer-review › Report – Annual report year: 2002

Localization of the solar flare SF900610 in X-rays with the WATCH instrument of the GRANAT observatory

During the solar flare of June 10, 1990, the WATCH instrument of the GRANAT space observatory obtained 110 localizations of the X-ray source in the X-ray range 8-20 keV. Its coordinates were measured with an accuracy of similar to 2 arcmin at a 3sigma confidence level. The coordinates of the X-ray source do not coincide with the coordinates of the Ha-line flare. The X-ray source moved over the solar disk during the flare. This probably implies that, as the X-ray emission was generated, different parts of one loop or a system of magnetic loops dominated at different flare times.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Terekhov, O. (Ekstern), Kuzmin, A. (Ekstern), Shevchenko, A. (Ekstern), Sazonov, S. (Ekstern), Sunyaev, R. (Ekstern), Lund, N. (Intern)

Pages: 853-856

Publication date: 2002

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters-a Journal of Astronomy and Space Astrophysics

Volume: 28

Issue number: 12

ISSN (Print): 1063-7737

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.85

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.83

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.17

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

the Sun, X-ray and gamma-ray sources

Source: orbit

Source-ID: 205197

Publication: Research - peer-review › Journal article – Annual report year: 2002

Observation of quasi-periodic pulsations in the solar flare SF 900610

A quasi-periodic component was found at the maximum of the X-ray light curve for the June 10, 1990 solar flare detected by the Granat observatory. The pulsation period was 143.2 ± 0.8 s. The intensity of the pulsing component is not constant; the maximum amplitude of the pulsations is similar to 5% of the total flare intensity. An analysis of the data showed the characteristic size of the magnetic loop responsible for these pulsations to be similar to $(1-3) \times 10^{10}$ cm.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Terekhov, O. (Ekstern), Shevchenko, A. (Ekstern), Kuz'min, A. (Ekstern), Sazonov, S. (Ekstern), Sunyaev, R. (Ekstern), Lund, N. (Intern)

Pages: 397-400

Publication date: 2002

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters-a Journal of Astronomy and Space Astrophysics

Volume: 28

Issue number: 6

ISSN (Print): 1063-7737

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.85

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.83

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.17

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

magnetic loops, quasi-periodic pulsations, solar flares

Source: orbit

Source-ID: 205217

Publication: Research - peer-review › Journal article – Annual report year: 2002

The optical afterglow and host galaxy of GRB 000926

In this paper we illustrate with the case of GRB 000926 how Gamma Ray Bursts (GRBs) can be used as cosmological lighthouses to identify and study star forming galaxies at high redshifts. The optical afterglow of the burst was located with optical imaging at the Nordic Optical Telescope 20.7 hours after the burst. Rapid follow-up spectroscopy allowed the determination of the redshift of the burst and a measurement of the host galaxy HI-column density in front of the burst. With late-time narrow band Ly α as well as broad band imaging, we have studied the emission from the host galaxy and found that it is a strong Ly α emitter in a state of active star formation.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Fynbo, J. (Ekstern), Gorosabel, J. (Ekstern), Dall, T. (Ekstern), Pedersen, H. (Ekstern), Andersen, M. (Ekstern), Møller, P. (Ekstern), Holland, S. (Ekstern), Smail, I. (Ekstern), Kobayashi, N. (Ekstern), Lund, N. (Intern)

Pages: 187-190

Publication date: 2002

Host publication information

Title of host publication: Lighthouses of the universe : The most luminous celestial objects and their use for cosmology

ISBN (Print): 3-540-43769-X, 978-3-540-43769-7

ISBN (Electronic): 978-3-540-48014-3

Series: E S O Astrophysics Symposia

ISSN: 1431-2433

Main Research Area: Technical/natural sciences

Conference: MPA/ESO/MPE/USM Joint Astronomy Conference on Lighthouses of the Universe, Garching, Germany, 06/08/2001 - 06/08/2001

DOIs:

10.1007/10856495_24

Source: orbit

Source-ID: 208272

Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

XTE J1650-500

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Sanchez-Fernandez, C. (Ekstern), Zurita, C. (Ekstern), Casares, J. (Ekstern), Castro-Tirado, A. J. (Ekstern), Bond, I. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern)

Publication date: 2002

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circular

Original language: English

Source: orbit

Source-ID: 207805

Publication: Research - peer-review › Journal article – Annual report year: 2002

GRB follow-up observations from observatories based in Spain

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Greiner, J. (Ekstern), Castro-Cerón, J. (Ekstern), Klose, S. (Ekstern), Lund, N. (Intern)

Number of pages: 169

Publication date: 2001

Host publication information

Title of host publication: Proceedings of 2nd workshop "Gamma Ray Bursts in the Afterglow Era"

Editors: Costa, E., Frontera, F., Hjorth, J.

Main Research Area: Technical/natural sciences

Workshop: 2nd Workshop "Gamma Ray Bursts in the Afterglow Era", Rome, Italy, 17/10/2000 - 17/10/2000

Source: orbit

Source-ID: 208277

Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

JEM-X Calibration Plan (IN-PL-JEMX-0001)

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Brandt, S. K. (Intern), Lund, N. (Intern), Rasmussen, I. L. (Intern), Frontera, F. (Ekstern), Pellicciari, C. (Ekstern), Loffredo, G. (Ekstern)
Publication date: 2001

Publication information

Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 208144
Publication: Research - peer-review › Report – Annual report year: 2001

Optical behaviour of XTE J1550-564 and XTE J1859+226 from outburst to quiescence

We present here the optical light curves of the Soft X-ray Transients XTE J1550-564 and XTEJ1859+226 from outburst to quiescence.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Sanchez-Fernandez, C. (Ekstern), Castro-Tirado, A. (Ekstern), Gimenez, A. (Ekstern), Zurita, C. (Ekstern), Casares, J. (Ekstern), Lund, N. (Intern)
Pages: 51-54
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysics and Space Science
Volume: 276
ISSN (Print): 0004-640X
Ratings:

BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.23
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 1.41
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.84
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 1.75
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 1.31
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 1.12
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Web of Science (2008): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2001): Indexed yes

Original language: English
optical observations, black hole candidates, X-ray Transients
Source: orbit
Source-ID: 205232
Publication: Research - peer-review › Journal article – Annual report year: 2001

Optical observations of the dark gamma-ray burst GRB 000210

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Jensen, B. (Ekstern), Hjorth, J. (Ekstern), Pedersen, H. (Ekstern), Fynbo, J. (Ekstern), Andersen, M. (Ekstern), Holland, S. (Ekstern), Jaunsen, A. (Ekstern), Lund, N. (Intern)
Number of pages: 172
Publication date: 2001

Host publication information

Title of host publication: Proceedings of 2nd workshop "Gamma Ray Bursts in the Afterglow Era"
Editors: Costa, E., Frontera, F., Hjorth, J.
Main Research Area: Technical/natural sciences
Workshop: 2nd Workshop "Gamma Ray Bursts in the Afterglow Era", Rome, Italy, 17/10/2000 - 17/10/2000
Source: orbit
Source-ID: 208279
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

The optical afterglow and host galaxy of GRB 000926

We present the discovery of the Optical Transient (OT) of the long-duration gamma-ray burst GRB 000926. The optical transient was detected independently with the Nordic Optical Telescope and at Calar Alto 22.2 hours after the burst. At this time the magnitude of the transient was $R = 19.36$. The transient faded with a decay slope of about 1.7 during the first two days after which the slope increased abruptly (within a few hours) to about 2.4. The light-curve started to flatten off after about a week indicating the presence of an underlying extended object. This object was detected in a deep image obtained one month after the GRB at $R = 23.87 \pm 0.15$ and consists of several compact knots within about 5 arcsec. One of the knots is spatially coincident with the position of the OT and hence most likely belongs to the host galaxy. Higher resolution imaging is needed to resolve whether all the compact knots belong to the host galaxy or to several independent objects. In a separate paper we present a discussion of the optical spectrum of the OT, and its inferred redshift (Møller et al., in prep.).

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Fynbo, J. (Ekstern), Gorosabel, J. (Ekstern), Dall, T. (Ekstern), Hjorth, J. (Ekstern), Andersen, M. (Ekstern), Pedersen, H. (Ekstern), Møller, P. (Ekstern), Holland, S. (Ekstern), Smail, I. (Ekstern), Kobayashi, N. (Ekstern), Rol, E. (Ekstern), Vreeswijk, P. (Ekstern), Burud, I. (Ekstern), Jensen, B. (Ekstern), Thomsen, B. (Ekstern), Henden, A. (Ekstern), Vrba, F. (Ekstern), Canzian, B. (Ekstern), Ceron, J. (Ekstern), Castro-Tirado, A. (Ekstern), Cline, T. (Ekstern), Goto, M. (Ekstern), Greiner, J. (Ekstern), Hanski, M. (Ekstern), Hurley, K. (Ekstern), Lund, N. (Intern), Pursimo, T. (Ekstern), Ostensen, R. (Ekstern), Solheim, J. (Ekstern), Tanvir, N. (Ekstern), Terada, H. (Ekstern)
Pages: 796-804
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics
Volume: 373
Issue number: 3
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, cosmology : observations
DOIs:
10.1051/0004-6361:20010531
Source: orbit
Source-ID: 205244
Publication: Research - peer-review › Journal article – Annual report year: 2001

Gamma-ray burst arrival-time localizations: Simultaneous observations by Ulysses, Pioneer Venus Orbiter, SIGMA, WATCH, and PHEBUS

Between the launch of the Ulysses spacecraft in 1990 October and the entry of Pioneer Venus Orbiter (PVO) into the atmosphere of Venus in 1992 October, concurrent coverage by Ulysses, PVO, the WATCH experiments aboard the Granat and Eureka spacecraft, and the SIGMA and PHEBUS experiments aboard the Granat spacecraft was obtained for numerous gamma-ray bursts. Fifteen of them were detected by three or more instruments on spacecraft separated by

distances of several AU and could therefore be accurately localized by triangulation. In some cases, independent, accurate locations were obtained by SIGMA and/or WATCH. We present these localizations, which range in area from 0.9 to 530 arcmin(2).

General information

State: Published

Organisations: Los Alamos National Laboratory, Danish Space Research Institute

Authors: Hurley, K. (Ekstern), Laros, J. (Ekstern), Brandt, S. K. (Intern), Fenimore, E. (Ekstern), Klebesadel, R. (Ekstern), Terrell, J. (Ekstern), Cline, T. (Ekstern), Barat, C. (Ekstern), Boer, M. (Ekstern), Dezalay, J. (Ekstern), Sunyaev, R. (Ekstern), Terekhov, O. (Ekstern), Kuznetsov, A. (Ekstern), Sazonov, S. (Ekstern), Lund, N. (Intern), Claret, A. (Ekstern), Paul, J. (Ekstern), Castro-Tirado, A. (Ekstern)

Pages: 884-889

Publication date: 2000

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal

Volume: 533

Issue number: 2

ISSN (Print): 0004-637X

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): CiteScore 5.26

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): CiteScore 4.8

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): CiteScore 4.57

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): CiteScore 4.85

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): CiteScore 5.51

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): CiteScore 5.46

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Web of Science (2008): Indexed yes

Web of Science (2007): Indexed yes

Web of Science (2006): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2003): Indexed yes

Web of Science (2002): Indexed yes

Web of Science (2001): Indexed yes

Web of Science (2000): Indexed yes

Original language: English
gamma rays : bursts
DOIs:
10.1086/308675
Source: orbit
Source-ID: 205299
Publication: Research - peer-review › Journal article – Annual report year: 2000

INTEGRAL capabilities for faint gamma-ray bursts

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern)
Publication date: 2000

Host publication information

Title of host publication: Proceedings of the 4th INTEGRAL workshop
Main Research Area: Technical/natural sciences
Workshop: 4th INTEGRAL Workshop, Alicante, Spain, 04/09/2000 - 04/09/2000

Relations

Activities:
4th INTEGRAL Workshop
Source: orbit
Source-ID: 206592
Publication: Research - peer-review › Article in proceedings – Annual report year: 2000

MONS/Ballerina science mission specification

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern), Kjeldsen, H. (Ekstern)
Publication date: 2000

Publication information

Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 207095
Publication: Research - peer-review › Report – Annual report year: 2000

Optical observations of the dark gamma-ray burst GRB 000210

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Jensen, B. (Ekstern), Hjorth, J. (Ekstern), Pedersen, H. (Ekstern), Fynbo, J. (Ekstern), Andersen, M. (Ekstern), Holland, S. (Ekstern), Jaunsen, A. (Ekstern), Lund, N. (Intern)
Publication date: 2000

Host publication information

Title of host publication: Proceedings of the 2nd workshop: "Gamma Ray Bursts in the Afterglow Era"
Main Research Area: Technical/natural sciences
Workshop: 2nd Workshop "Gamma Ray Bursts in the Afterglow Era", Rome, Italy, 17/10/2000 - 17/10/2000
Source: orbit
Source-ID: 206594
Publication: Research - peer-review › Article in proceedings – Annual report year: 2000

The Ballerina gamma-ray burst experiment on the Rømer mission

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern), Brandt, S. K. (Intern), Westergaard, N. J. S. (Intern), Gorosabel, J. (Ekstern), Pedersen, K. (Ekstern)

Publication date: 2000

Host publication information

Title of host publication: Proceedings of the 2nd workshop: "Gamma Ray Bursts in the Afterglow Era

Main Research Area: Technical/natural sciences

Workshop: 2nd Workshop "Gamma Ray Bursts in the Afterglow Era", Rome, Italy, 17/10/2000 - 17/10/2000

Source: orbit

Source-ID: 206623

Publication: Research - peer-review › Article in proceedings – Annual report year: 2000

The Olysses supplement to the Granat/WATCH catalog of cosmic gamma-ray bursts

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Hurley, K. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern)

Pages: 549

Publication date: 2000

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Supplement Series

Volume: 128

Original language: English

Source: orbit

Source-ID: 206819

Publication: Research - peer-review › Journal article – Annual report year: 2000

The Ulysses supplement to the Granat/WATCH catalog of cosmic gamma-ray bursts

We present third Interplanetary Network (IPN) localization data for 56 gamma-ray bursts in the Granat/WATCH catalog that occurred between 1990 November and 1994 September. These localizations are obtained by triangulation using various combinations of spacecraft and instruments in the IPN, which consisted of Ulysses, BATSE, Pioneer Venus Orbiter, Mars Observer, WATCH, and PHEBUS. The intersections of the triangulation annuli with the WATCH error circles produce error boxes with areas as small as 16 arcmin², reducing the sizes of the error circles by factors of up to 800.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Hurley, K. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern), Barat, C. (Ekstern), Cline, T. (Ekstern), Sunyaev, R. (Ekstern), Terekhov, O. (Ekstern), Kuznetsov, A. (Ekstern), Sazonov, S. (Ekstern), Castro-Tirado, A. (Ekstern)

Pages: 549-560

Publication date: 2000

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal Supplement Series

Volume: 128

Issue number: 2

ISSN (Print): 0067-0049

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 8.95

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 8.83

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 9
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 9.83
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 14.26
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 11.32
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2003): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
gamma rays : bursts, catalogs
Electronic versions:
Hurley_2000_ApJS_128_549.pdf
Source: orbit
Source-ID: 205280
Publication: Research - peer-review › Journal article – Annual report year: 2000

A serendipitous observation of the gamma-ray burst GRB 921013b field with EUVE

We report a serendipitous extreme ultraviolet observation by EUVE of the field containing GRB 921013b, similar to 11 hours after its occurrence. This burst was detected on 1992 October 13 by the WATCH and PHEBUS on Granat, and by the GRB experiment on Ulysses. The lack of any transient (or quiescent) EUV source imposes a 2 sigma upper limit of 1.3×10^{-12} erg s⁻¹ cm⁻² in the 58-174 Angstrom bandpass. In the likely case that GRB 921013b was extragalactic, and assuming the existence of an X-ray afterglow similar to those observed for GRB 970228 and GRB 970828, the resulting EUV flux 11 hours after the burst is 1.8×10^{-16} erg s⁻¹ cm⁻² after correction for absorption by the Galactic interstellar medium. Even if we exclude an intrinsic absorption, this is well below the detection limit of the EUVE measurement. Although it is widely accepted that gamma-ray bursts are at cosmological distances, if the source of GRB 921013b would be a galactic neutron star, the data presented here place a lower limit to its distance of similar to 30 pc.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Castro-Tirado, A. (Ekstern), Gorosabel, J. (Ekstern), Bowyer, S. (Ekstern), Korpela, E. (Ekstern), Hurley, K. (Ekstern), Lund, N. (Intern)
Pages: 47-48
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics
Volume: 342
Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes

Scopus rating (2001): SJR 1.555 SNIP 0.727

Web of Science (2001): Indexed yes

Scopus rating (2000): SJR 2.178 SNIP 1.039

Web of Science (2000): Indexed yes

Scopus rating (1999): SJR 2.489 SNIP 1.076

Original language: English

gamma rays : bursts, ultraviolet : ISM

Source: orbit

Source-ID: 205335

Publication: Research - peer-review › Journal article – Annual report year: 1999

Ballerina - pirouettes in search for gamma-ray bursts

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern)

Publication date: 1999

Publication information

Publisher: Danish Space Research Institute

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 206751

Publication: Research - peer-review › Report – Annual report year: 1999

Ballerina - pirouettes in search of gamma bursts

The cosmological origin of gamma ray bursts has now been established with reasonable certainty, Many more bursts will need to be studied to establish the typical distance scale, and to map out the large diversity in properties which have been indicated by the first handful of events. We are proposing Ballerina, a small satellite to provide accurate positions and new data on the gamma-ray bursts. We anticipate a detection rate an order of magnitude larger than obtained from Beppo-SAX.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Brandt, S. K. (Intern), Lund, N. (Intern), Pedersen, H. (Intern), Hjorth, J. (Ekstern)

Pages: 573-574

Publication date: 1999

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics Supplement Series

Volume: 138

Issue number: 3

ISSN (Print): 0365-0138

Ratings:

BFI (2008): BFI-level 1

Scopus rating (2003): SJR 1.91 SNIP 2.557

Scopus rating (2002): SJR 1.366 SNIP 2.231

Scopus rating (2001): SJR 1.056 SNIP 0.973

Scopus rating (2000): SJR 1.94 SNIP 1.045

Scopus rating (1999): SJR 2.014 SNIP 1.119

Original language: English

space vehicles, gamma-rays : bursts

Source: orbit

Source-ID: 205319

Publication: Research - peer-review › Journal article – Annual report year: 1999

Ballerina - pirouettes in search of gamma bursts sources

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Brandt, S. K. (Intern), Lund, N. (Intern)

Number of pages: 33

Publication date: 1999

Host publication information

Title of host publication: AIP Conference Proceedings

Volume: 499
Editor: Brumby, S.
Main Research Area: Technical/natural sciences
Workshop: Small missions for energetic astrophysics, Los Alamos, NM, United States, 22/02/1999 - 22/02/1999

Relations

Activities:

Small missions for energetic astrophysics

Source: orbit

Source-ID: 206703

Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

Ballerina-Pirouettes in Search of Gamma-Ray Bursts

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern)

Pages: 287-297

Publication date: 1999

Host publication information

Title of host publication: ASP Conference Series

Volume: 190

Editors: Poutanen, J., Svensson, R.

Main Research Area: Technical/natural sciences

Workshop: Gamma Ray Bursts, Gräftavallen, Sweden, 06/02/1999 - 06/02/1999

Source: orbit

Source-ID: 206719

Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

JEM-X detailed electronic design: JEM-X critical design review

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern)

Publication date: 1999

Publication information

Publisher: Danish Space Research Institute

Original language: English

Main Research Area: Technical/natural sciences

Bibliographical note

(CD-rom)

Source: orbit

Source-ID: 206748

Publication: Research - peer-review › Report – Annual report year: 1999

JEM-X experiment interface document, part B, EID-B: JEM-X critical design review

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern)

Publication date: 1999

Publication information

Publisher: Danish Space Research Institute

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 206746

JEM-X science performance report: JEM-X critical design review

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern)
Publication date: 1999

Publication information

Publisher: Danish Space Research Institute
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 206747
Publication: Research - peer-review › Report – Annual report year: 1999

JEM-X technical notes

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern), Budtz-Jørgensen, C. (Intern)
Publication date: 1999

Publication information

Publisher: Danish Space Research Institute
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 206749
Publication: Research - peer-review › Report – Annual report year: 1999

JEM-X: The X-ray monitor on INTEGRAL

The INTEGRAL X-ray monitor, JEM-X, (together with the two gamma ray instruments, SPI and IBIS) will provide simultaneous imaging with arcminute angular resolution in the 3-60 keV band. The unique angular resolution and low energy response of JEM-X will play a crucial role in the detection and identification of gamma ray sources as well as in the analysis and scientific interpretation of the combined X-ray and gamma ray data. JEM-X is a coded aperture X-ray telescope consisting of two identical detectors. Each detector has a sensitive area of 500 cm², and views the sky (6.6 deg FOV, FWHM) through its own coded aperture mask. The coded cm masks are located 3.4 m above the detector windows. The detector field of view is constrained by X-ray collimators.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern), Budtz-Jørgensen, C. (Intern), Westergaard, N. J. S. (Intern), Hornstrup, A. (Intern), Rasmussen, I. L. (Intern), Laursen, S. (Intern), Kristensen, R. (Ekstern), Mogensen, P. (Ekstern), Andersen, K. H. (Ekstern), Rasmussen, I. (Ekstern), Polny, J. (Intern), Frederiksen, P. (Ekstern), Lauridsen, B. (Ekstern), Omo, K. (Ekstern), Jonasson, P. (Ekstern), Kamarinen, V. (Ekstern), Andersson, T. B. (Intern), Vilhu, O. (Ekstern), Huovelin, J. (Ekstern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Rubini, A. (Ekstern), Morelli, E. (Ekstern), Morbidini, A. (Ekstern), Frontera, F. (Ekstern), Zavattini, C. (Ekstern), Carassiti, V. (Ekstern), Morawski, M. (Ekstern), Juchnikowski, G. (Ekstern), Reglero, V. (Ekstern), Peris, J. (Ekstern), Collado, V. (Ekstern), Rodrigo, J. (Ekstern), Perez, F. (Ekstern), Requena, J. (Ekstern), Larsson, S. (Ekstern), Svensson, R. (Ekstern), Zdziarski, A. (Ekstern), Schnopper, H. (Ekstern)
Pages: 807-813
Publication date: 1999
Conference: 3rd Integral Workshop on the Extreme Universe, Taromina, Italy, 14/09/1998 - 14/09/1998
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Letters & Communications
Volume: 39
Issue number: 1-6
ISSN (Print): 0888-6512

Ratings:

BFI (2008): BFI-level 1

Scopus rating (2003): SJR 0.225 SNIP 0.656

Scopus rating (2002): SJR 0.209 SNIP 0.585

Scopus rating (2001): SJR 0.146 SNIP 0.149

Scopus rating (2000): SJR 0.137 SNIP 0.037

Scopus rating (1999): SJR 0.187 SNIP 0.062

Original language: English

sensitivity, INTEGRAL, X-ray astronomy, JEM-X

Source: orbit

Source-ID: 205282

Publication: Research - peer-review > Conference article – Annual report year: 1999

Observations of short-duration X-ray transients by WATCH on Granat

During 1990-92, the WATCH all-sky X-ray monitor on Granat discovered six short-duration X-ray transients. In this paper we discuss their possible relationship to peculiar stars. Only one of the fast (few hours) X-ray transients (GRS 1100-771) might be tentatively ascribed to a superflare arising from a young stellar object in the Chamaeleon I star-forming cloud. At the distance of similar to 150 pc, $L_x = 1.35 \times 10^{34}$ erg s⁻¹ (8-15 keV), or 2.6×10^{34} erg s⁻¹ (0.1-2.4 keV) assuming a thermal spectrum with kT similar to 10 keV, a temperature higher than those previously seen in T Tauri stars (Tsuboi et al. 1998). The peak X-ray luminosity is at least 2 times higher than that derived for the protostar IRS 43 (Grosso et al. 1997) which would make - to our knowledge- the strongest flare ever seen in a YSO. However, the possibility of GRS 1100-771 being an isolated neutron star unrelated to the cloud cannot be excluded, given the relatively large error box provided by WATCH. Regarding the longer duration (similar to 1 day) X-ray transients, none of them seem to be related to known objects. We suggest that the latter are likely to have originated from compact objects in low-mass or high-mass X-ray binaries, similarly to XTE J0421+560.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Castro-Tirado, A. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern), Sunyaev, R. (Ekstern)

Pages: 927-931

Publication date: 1999

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 347

Issue number: 3

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
X-rays : bursts, ISM : individual objects : Chamaeleon I cloud, stars : pre-main sequence, stars : flare, X-rays : stars
Source: orbit
Source-ID: 205325
Publication: Research - peer-review › Journal article – Annual report year: 1999

Optical and near-infrared observations of the GRB 970616 error box

We report on near-infrared and optical observations of the GRB 970616 error box and of the X-ray sources discovered by ASCA and ROSAT in the region. No optical transient was found either within the IPN band or in the X-ray error boxes, similarly to other bursts, and we suggest that either considerable intrinsic absorption was present (like GRB 970828) or that the optical transient displayed a very fast decline (like GRB 980326 and GRB 980519).

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Pedersen, H. (Intern), Greiner, J. (Ekstern), Thompson, D. (Ekstern), Guerrero, M. (Ekstern), Oscoz, A. (Ekstern), Sabalisck, N. (Ekstern), Villaver, E. (Ekstern), Lund, N. (Intern)
Pages: 455-456
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics Supplement Series
Volume: 138
Issue number: 3
ISSN (Print): 0365-0138
Ratings:
BFI (2008): BFI-level 1

Scopus rating (2003): SJR 1.91 SNIP 2.557
Scopus rating (2002): SJR 1.366 SNIP 2.231
Scopus rating (2001): SJR 1.056 SNIP 0.973
Scopus rating (2000): SJR 1.94 SNIP 1.045
Scopus rating (1999): SJR 2.014 SNIP 1.119
Original language: English
gamma-rays : bursts, methods : observational
DOIs:
10.1051/aas:1999306
Source: orbit
Source-ID: 205318
Publication: Research - peer-review › Journal article – Annual report year: 1999

Sensitivities of JEM-X

The mask design for JEM-X is now finalized regarding the hole pattern and mechanical support structure. The engineering model of the detectors with collimators is under construction. The JEM-X sensitivities for source detection in various circumstances are reviewed with proper regard to the way INTEGRAL will carry out its pointed observations. An important fraction of the INTEGRAL observation time will be used for scans along the galactic plane and observations of the central region of our galaxy. The JEM-X performance for this type of observations is discussed. The software tools used to carry out the detailed observation simulations are described.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Westergaard, N. J. S. (Intern), Lund, N. (Intern)
Pages: 885-+
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Letters & Communications
Volume: 39
Issue number: 1-6
ISSN (Print): 0888-6512
Ratings:
BFI (2008): BFI-level 1
Scopus rating (2003): SJR 0.225 SNIP 0.656
Scopus rating (2002): SJR 0.209 SNIP 0.585
Scopus rating (2001): SJR 0.146 SNIP 0.149
Scopus rating (2000): SJR 0.137 SNIP 0.037
Scopus rating (1999): SJR 0.187 SNIP 0.062
Original language: English
sensitivity, INTEGRAL, X-ray astronomy, JEM-X
Source: orbit
Source-ID: 205284
Publication: Research - peer-review › Journal article – Annual report year: 1999

The background simulations for the integral X-ray monitor JEM-X

The JEM-X experiment (Joint European X-ray Monitor, Lund et al. (1998) and Westergaard and Lund (1998)) is the X-ray monitor of the INTEGRAL satellite. It is a coded aperture, high pressure microstrip proportional counter. It will operate in the primary energy range from 3 to 35 keV (with extensions up to 100 keV), covering the central 6.6 degrees (FWHM) of the fields of view of the Imager and Spectrometer experiments. In this paper we show the latest background prediction for JEM-X, obtained by a Monte Carlo simulation based on the codes MCNP and GEANT. The local radiation environment used as input in the MCNP simulation was provided by the TIMM working group (Lei et al. 1998), based on an accurate simulation of the INTEGRAL satellite with the GEANT code. The TIMM source (secondary particles generated by cosmic rays interactions with the spacecraft) has been injected into the MCNP code and transported through a very detailed model of the JEM-X detector.

General information

State: Published
Organisations: Department of Chemical and Biochemical Engineering, Astrophysics, National Space Institute
Authors: Feroci, M. (Ekstern), Rapisarda, M. (Ekstern), Costa, E. (Ekstern), Lei, F. (Intern), Ferguson, C. (Ekstern), Dean, A. (Ekstern), Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern), Lund, N. (Intern)

Pages: 889/421-892/424

Publication date: 1999

Conference: 3rd Integral Workshop on the Extreme Universe, Taromina, Italy, 14/09/1998 - 14/09/1998

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Letters & Communications

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BFI (2008): BFI-level 1

Scopus rating (2003): SJR 0.225 SNIP 0.656

Scopus rating (2002): SJR 0.209 SNIP 0.585

Scopus rating (2001): SJR 0.146 SNIP 0.149

Scopus rating (2000): SJR 0.137 SNIP 0.037

Scopus rating (1999): SJR 0.187 SNIP 0.062

Original language: English

Space experiments

Source: orbit

Source-ID: 205285

Publication: Research - peer-review › Conference article – Annual report year: 1999

The INTEGRAL Core Observing Programme

The Core Programme of the INTEGRAL mission is defined as the portion of the scientific programme covering the guaranteed time observations for the INTEGRAL Science Working Team. This paper describes the current status of the Core Programme preparations and summarizes the key elements of the observing programme.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Winkler, C. (Ekstern), Gehrels, N. (Ekstern), Lund, N. (Intern), Schonfelder, V. (Ekstern), Ubertini, P. (Ekstern)

Pages: 829-832

Publication date: 1999

Main Research Area: Technical/natural sciences

Publication information

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Ratings:

BFI (2008): BFI-level 1

Scopus rating (2003): SJR 0.225 SNIP 0.656

Scopus rating (2002): SJR 0.209 SNIP 0.585

Scopus rating (2001): SJR 0.146 SNIP 0.149

Scopus rating (2000): SJR 0.137 SNIP 0.037

Scopus rating (1999): SJR 0.187 SNIP 0.062

Original language: English

compact objects, INTEGRAL, nucleosynthesis, high energy transients

Source: orbit

Source-ID: 205283

Publication: Research - peer-review › Journal article – Annual report year: 1999

The JEM-X User Manual

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern), Rasmussen, I. L. (Intern)

Publication date: 1999

Publication information

Publisher: Danish Space Research Institute

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 206750

Publication: Research - peer-review › Report – Annual report year: 1999

The scientific role of JEM-X: the X-ray monitor on INTEGRAL

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern), Westergaard, N. J. S. (Intern), Brandt, S. K. (Intern), Hornstrup, A. (Intern), Budtz-Jørgensen, C. (Intern)

Publication date: 1999

Host publication information

Title of host publication: Proceedings of the 5th Compton Symposium

Main Research Area: Technical/natural sciences

Conference: 5th Compton Symposium, Portsmouth NH, 01/01/1999

Source: orbit

Source-ID: 206720

Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

The Wilson-Bappu effect of the MgII k line - dependence on stellar temperature, activity and metallicity

The Wilson-Bappu effect is investigated using accurate absolute magnitudes of 65 stars obtained through early release of data from the Hipparcos satellite together with MgII k fine widths determined from high resolution spectra observed with the International Ultraviolet Explorer (IUE) observatory. Stars of spectral classes F, G, K and M and luminosity classes I-V are represented in the sample. Wilson-Bappu relations for the Mg II k line for stars of different temperatures i.e. spectral classes are determined. The relation varies with spectral class and there is a significant scatter of the line widths around the regression lines. The sample contains slowly rotating stars of different activity levels and is suitable for investigations of a possible relation between line width and stellar activity. A difference in behavior between dwarfs and giants (and supergiants) of spectral class K seems to be present. Magnetic activity affects the width of the Mg II k line in dwarfs. Metallicity is found to influence the Mg II k line width in giants and supergiants. Possible interpretations of the new results are briefly discussed.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Elgaroy, O. (Ekstern), Engvold, O. (Ekstern), Lund, N. (Intern)

Pages: 222-228

Publication date: 1999

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics

Volume: 343

Issue number: 1

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
stars : activity, stars : chromospheres
Source: orbit
Source-ID: 205334
Publication: Research - peer-review › Journal article – Annual report year: 1999

A BATSE-based search for repeaters in the sample of gamma-ray bursts detected by the WATCH experiment

This study is the first known attempt to search for gamma-ray burst repeaters combining data from gamma-ray experiments flying on board different satellites and making use of information derived from the bursts detected simultaneously by all the experiments. The proposed method is suitable to correlate GRB data provided by experiments that overlap partially or totally in time. As an application of this method we have correlated the positions of 57 gamma-ray bursts observed by WATCH/GRANAT and WATCH/EURECA with 1905 bursts detected by BATSE. Comparing the so-called "added correlation" between the WATCH and BATSE bursts with that obtained with simulated WATCH catalogues, we conclude that there is no indication of recurrent activity of WATCH bursts in the BATSE sample. We derive an upper limit of 15.8%, with a confidence level of 94%, for the number of WATCH gamma-ray bursts that could represent a population of repeaters in the BATSE sample.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern)

Pages: 57-62

Publication date: 1998

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics

Volume: 336

Issue number: 1

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Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes

Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes

Scopus rating (2005): SJR 2.891 SNIP 1.355

Web of Science (2005): Indexed yes

Scopus rating (2004): SJR 2.633 SNIP 1.462

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 1.967 SNIP 1.373

Web of Science (2003): Indexed yes

Scopus rating (2002): SJR 1.742 SNIP 1.346

Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts
Source: orbit
Source-ID: 205364
Publication: Research - peer-review › Journal article – Annual report year: 1998

An optical study of the GRB 970111 field beginning 19 hours after the gamma-ray burst

We present the results of the monitoring of the GRB 970111 field that started 19 hours after the event. This observation represents the fastest ground-based follow-up performed for GRB 970111 in all wavelengths. As soon as the detection of the possible GRB 970111 X-ray afterglow was reported by Feroci et al. (1998) we reanalyzed the optical data collected for the GRB 970111 field. Although we detect small magnitude variability in some objects, no convincing optical counterpart is found inside the WFC error box. Any change in brightness 19 hours after the GRB is less than 0.2 mag for objects with $B < 21$ and $R < 20.8$. The bluest object found in the field is coincident with 1SAX J1528.8+1937. Spectroscopic observations revealed that this object is a Seyfert-I galaxy with redshift $z = 0.657$, which we propose as the optical counterpart of the X-ray source. Further observations allowed to perform multicolour photometry for objects in the GRB 970111 error box. The colour-colour diagrams do not show any object with unusual colours. We applied a photometric classification method to the objects inside the GRB error box, that can distinguish stars from galaxies and estimate redshifts. We were able to estimate photometric redshifts in the range $0.2 < z < 1.4$ for several galaxies in this field and we did not find any conspicuous unusual object. We note that GRB 970111 and GRB 980329 could belong to the same class of GRBs, which may be related to nearby sources (2 similar to 1) in which high intrinsic absorption leads to faint optical afterglows.

General information

State: Published
Organisations: Department of Automation, Office for Research and Relations, Astrophysics, National Space Institute
Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Wolf, C. (Intern), Heidt, J. (Ekstern), Seitz, T. (Ekstern), Thommes, E. (Ekstern), Bartolini, C. (Ekstern), Guarnieri, A. (Ekstern), Masetti, N. (Ekstern), Piccioni, A. (Ekstern), Larsen, S. (Intern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Frontera, F. (Ekstern), Palazzi, E. (Ekstern), Lund, N. (Intern)
Pages: 719-728
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics
Volume: 339
Issue number: 3
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
gamma rays : bursts, galaxies : Seyfert
Source: orbit
Source-ID: 205358
Publication: Research - peer-review › Journal article – Annual report year: 1998

BATSE repeaters in the context of the WATCH/EURECA and WATCH/GRANAT catalogues

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern)

Publication date: 1998

Host publication information

Title of host publication: AIP Conference Proceedings

Volume: 428

Main Research Area: Technical/natural sciences

Conference: Gamma-Ray Bursts. 4th Huntsville Symposium, 01/01/1998

Source: orbit

Source-ID: 205972

Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Deka-keV X-ray observations of solar bursts with WATCH/GRANAT: frequency distributions of burst parameters

Solar flare observations in the deka-keV range are performed by the WATCH experiment on board the GRANAT satellite. The WATCH experiment is presented, including the energy calibration as applied in the present work. The creation of the

solar burst catalogue covering two years of observation is described and some examples of solar observations are given. The estimated energy releases in the flares presented here are found to extend below the range of hard X-ray flares which were previously studied by ISEE-3 and HXRBS/SMM detectors. The X-ray emitting component cannot be exclusively explained by contributions from a thermal plasma around a few keV. Either a hotter component or a non-thermal population of particles must also be present to produce the observed deka-keV emission. The WATCH data furthermore shows that the relative contributions of these components may change during an event or from event to event and that the injection of energy contained in suprathermal electrons may occur throughout an event and not only during the rise phase. For the most energetic WATCH flares simultaneous observations performed by other experiments at higher energies further indicate that non-thermal emission can be observed as low as 10 keV. A statistical study is performed on the total WATCH solar database and frequency distributions are built on measured X-ray flare parameters. It is also investigated how the properties of these frequency distributions behave when subgroups of events defined by different ranges of parameters are considered. No correlation is found between the elapsed time interval between successive flares arising from the same active region and the peak intensity of the flare.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Crosby, N. (Ekstern), Vilmer, N. (Ekstern), Lund, N. (Intern), Sunyaev, R. (Ekstern)

Pages: 299-313

Publication date: 1998

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics

Volume: 334

Issue number: 1

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BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
Sun : X-rays, gamma rays, Sun : activity, Sun : flares
Source: orbit
Source-ID: 205369
Publication: Research - peer-review › Journal article – Annual report year: 1998

GRANAT/WATCH catalogue of cosmic gamma-ray bursts: December 1989 to September 1994

We present the catalogue of gamma-ray bursts (GRB) observed with the WATCH all-sky monitor on board the GRANAT satellite during the period December 1989 to September 1994. The cosmic origin of 95 bursts comprising the catalogue is confirmed either by their localization with WATCH or by their detection with other GRB experiments. For each burst its time history and information on its intensity in the two energy ranges 8-20 keV and 30-60 keV are presented. Most events show hardening of the energy spectrum near the burst peak. In part of the bursts an X-ray precursor or a tail is seen at 8-20 keV. We have determined the celestial positions of the sources of 47 bursts. Their localization regions (at 3 sigma confidence level) are equivalent in area to circles with radii ranging from 0.2 to 1.6 deg. The burst sources appear isotropically distributed on the sky on large angular scales.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Sazonov, S. (Ekstern), Sunyaev, R. (Ekstern), Terekhov, O. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern), Castro-Tirado, A. (Ekstern)
Pages: 1-8
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics Supplement Series
Volume: 129
Issue number: 1
ISSN (Print): 0365-0138
Ratings:
BFI (2008): BFI-level 1
Scopus rating (2003): SJR 1.91 SNIP 2.557
Scopus rating (2002): SJR 1.366 SNIP 2.231
Scopus rating (2001): SJR 1.056 SNIP 0.973
Scopus rating (2000): SJR 1.94 SNIP 1.045
Scopus rating (1999): SJR 2.014 SNIP 1.119
Original language: English
miscellaneous, astronomical data bases, gamma rays, bursts, catalogs
Source: orbit
Source-ID: 205372
Publication: Research - peer-review › Journal article – Annual report year: 1998

JEM-X: Joint European X-ray monitor

JEM-X is the X-ray monitor for INTEGRAL. It is being built by a large European consortium led by the Danish Space Research Institute. It consists of two identical, independent coded mask X-ray telescopes with an energy span from 3 keV to 60 keV. Each system has a microstrip gas detector and a mask with a 25% transparent hexagonal uniformly redundant pattern based on a bi-quadratic residue set situated 3.4 m above the detector. The fully illuminated field-of-view is circular and 4.8 degrees across. The mechanical properties and source detection sensitivities are reviewed.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern), Westergaard, N. J. S. (Intern), Budtz-Jørgensen, C. (Intern)

Pages: 39-43

Publication date: 1998

Conference: Nordic Conference in Theoretical High-Energy Astrophysics, Copenhagen, Denmark, 14/09/1997 - 14/09/1997

Main Research Area: Technical/natural sciences

Publication information

Journal: Physica Scripta

Volume: T77

ISSN (Print): 0281-1847

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.84

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.64

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 0.62

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 0.61

ISI indexed (2013): ISI indexed no

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.67

ISI indexed (2012): ISI indexed no

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.85

ISI indexed (2011): ISI indexed no

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2006): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2002): Indexed yes

Web of Science (2000): Indexed yes

Original language: English

DOIs:

10.1088/0031-8949/1998/T77/010

Source: orbit

Source-ID: 205346

Publication: Research - peer-review › Conference article – Annual report year: 1998

JEM-X technical notes

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern), Budtz-Jørgensen, C. (Intern)

Publication date: 1998

Publication information

Publisher: Danish Space Research Institute

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 206049

Publication: Research - peer-review › Report – Annual report year: 1998

Observations of GRB X-ray afterglows with SODART/SRG

Despite recent progress with the detection of afterglows of Gamma Ray Bursts (GRBs), the nature of these events is unknown. However, important clues to understanding what the GRBs are, may very well be found by studying the X-ray afterglows. The combination on SRG of the MOXE all-sky monitor for detecting GRBs, and the powerful pointed SODART telescopes will be a unique tool for studying the long-term behavior of GRB afterglows. It is shown that SODART will be able to follow the temporal and spectral development of a GRB similar to the now famous GRB 970228 event for well over 20 days in order to provide constraints on theoretical models.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Brandt, S. K. (Intern), Lund, N. (Intern), Pedersen, H. (Intern), Castro-Tirado, A. (Ekstern), Priedhorsky, W. (Ekstern)

Pages: 93-94

Publication date: 1998

Main Research Area: Technical/natural sciences

Publication information

Journal: Physica Scripta. Topical Issues

Volume: T77

ISSN (Print): 0281-1847

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.84

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.64

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 0.62

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 0.61

ISI indexed (2013): ISI indexed no

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.67

ISI indexed (2012): ISI indexed no

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.85

ISI indexed (2011): ISI indexed no

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
Source: orbit
Source-ID: 205349
Publication: Research - peer-review › Journal article – Annual report year: 1998

Photometry and spectroscopy of the GRB 970508 optical counterpart

An optical transient within the error box of the gamma ray burst GRB 970508 was imaged 4 hours after the event. It displayed a strong ultraviolet excess, and reached maximum brightness 2 days later. The optical spectra did not show any emission lines, and no variations on time scales of minutes were observed for 1 hour during the decline phase. According to the fireball and afterglow models, the intensity should rise monotonically before the observed optical maximum, but the data indicate that another physical mechanism may be responsible for the constant phase seen during the first hours after the burst.

General information

State: Published
Organisations: Danish Space Research Institute, Los Alamos National Laboratory
Authors: Castro-Tirado, A. (Ekstern), Gorosabel, J. (Ekstern), Benitez, N. (Ekstern), Wolf, C. (Ekstern), Fockenbrock, R. (Ekstern), Martinez-Gonzalez, E. (Ekstern), Kristen, H. (Ekstern), Broeils, A. (Ekstern), Pedersen, H. (Ekstern), Greiner, J. (Ekstern), Costa, E. (Ekstern), Feroci, M. (Ekstern), Piro, L. (Ekstern), Frontera, F. (Ekstern), Nicastro, L. (Ekstern), Palazzi, E. (Ekstern), Bartolini, C. (Ekstern), Guarnieri, A. (Ekstern), Masetti, N. (Ekstern), Piccioni, A. (Ekstern), Mignoli, M. (Ekstern), Wold, M. (Ekstern), Lacy, M. (Ekstern), Birkle, K. (Ekstern), Broadhurst, T. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)
Pages: 1011-1014
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information

Journal: Science
Volume: 279
Issue number: 5353
ISSN (Print): 0036-8075
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 13.535 SNIP 7.688 CiteScore 14.39
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 12.906 SNIP 7.826 CiteScore 13.12
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 12.012 SNIP 8.269 CiteScore 12.68
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 12.305 SNIP 7.87 CiteScore 12.43
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 13.159 SNIP 8.124 CiteScore 12.39
ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 14.049 SNIP 8.309 CiteScore 11.97
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 13.216 SNIP 7.791
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 11.644 SNIP 7.033
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 10.996 SNIP 6.09
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 9.871 SNIP 6.021
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 10.337 SNIP 6.052
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 10.834 SNIP 6.581
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 11.249 SNIP 7.255
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 11.106 SNIP 7.371
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 10.5 SNIP 7.071
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 10.853 SNIP 6.907
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 12.983 SNIP 7.088
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 16.117 SNIP 7.073
Original language: English
DOIs:
10.1126/science.279.5353.1011
Source: orbit
Source-ID: 205904
Publication: Research - peer-review › Journal article – Annual report year: 1998

The scientific performance of the XMM instrumentation: Independent review on behalf of the ESA Director of Science

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Lund, N. (Intern)
Publication date: 1998

Publication information

Publisher: Danish Space Research Institute
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 206048
Publication: Research - peer-review › Report – Annual report year: 1998

The WATCH solar X-ray burst catalogue

The WATCH experiment aboard the GRANAT satellite provides observations of the Sun in the deka-keV range covering the years 1990 through mid-1992. An introduction to the experiment is given followed by an explanation of how the WATCH solar burst catalogue was created. The different parameters listed for each burst is given and are furthermore

explained.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Crosby, N. (Ekstern), Lund, N. (Intern), Vilmer, N. (Ekstern), Sunyaev, R. (Ekstern)

Pages: 233-234

Publication date: 1998

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics Supplement Series

Volume: 130

Issue number: 2

ISSN (Print): 0365-0138

Ratings:

BFI (2008): BFI-level 1

Scopus rating (2003): SJR 1.91 SNIP 2.557

Scopus rating (2002): SJR 1.366 SNIP 2.231

Scopus rating (2001): SJR 1.056 SNIP 0.973

Scopus rating (2000): SJR 1.94 SNIP 1.045

Scopus rating (1999): SJR 2.014 SNIP 1.119

Original language: English

X-rays, gamma rays, catalogs, flares, activity, sun

Source: orbit

Source-ID: 205368

Publication: Research - peer-review › Journal article – Annual report year: 1998

XMM scientific instrumentation: Independent review for ESA

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Lund, N. (Intern)

Publication date: 1998

Publication information

Publisher: Danish Space Research Institute

Original language: English

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 206047

Publication: Research - peer-review › Report – Annual report year: 1998

GRANAT/WATCH observations of GRS1915+105

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Sazonov, S. (Ekstern), Sunayev, R. (Ekstern), Lund, N. (Intern)

Number of pages: 187

Publication date: 1997

Publication information

Publisher: MPA

Original language: English

Series: MPA report

Number: 263

Main Research Area: Technical/natural sciences

Source: orbit

Source-ID: 205782

Publication: Research - peer-review › Report – Annual report year: 1997

GRBs Observed with WATCH and BATSE (3B Catalogue)

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Lund, N. (Intern), Brandt, S. K. (Intern), Terekhov, O. (Ekstern), Sunyaev, R. (Ekstern)

Number of pages: 378

Publication date: 1997

Host publication information

Title of host publication: AIP Conference Proceedings Series

Volume: 384

Editors: Kouveliotou, C., Briggs, M., Fishman, G.

Main Research Area: Technical/natural sciences

Conference: 3rd Huntsville Symposium, Huntsville, 01/01/1996

Source: orbit

Source-ID: 207603

Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

Super Eddington luminosity in the bursting pulsar GRO J1744-28. GRANAT/WATCH-results

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Sazonov, S. (Ekstern), Sunyaev, R. (Ekstern), Lund, N. (Intern)

Pages: 286

Publication date: 1997

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters

Volume: 23

ISSN (Print): 1063-7737

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.85

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.83

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.17

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

Source: orbit

Source-ID: 205710

WATCH bursts in the context of the BATSE 3B catalogue

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. (Ekstern), Brandt, S. K. (Intern), Lund, N. (Intern)

Publication date: 1997

Host publication information

Title of host publication: Proceedings of the 2nd INTEGRAL workshop

Editors: Winkler, C., Courvoisier, T., Durouchoux, P.

Series: ESA

Number: SP 382

Main Research Area: Technical/natural sciences

Conference: INTEGRAL : The Transparent Universe, 01/01/1997

Source: orbit

Source-ID: 205737

Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

Deka-keV X-ray emission associated with the onset of radio noise storms

Radio noise storms show that suprathermal electrons (a few tens of keV) are present in the vicinity of active regions during several hours or even a few days. Where and how these electrons are energized is not yet well known. A flare-like sudden energy release in the active region is in general observed at the onset of noise storms, either as a fully developed flare or, more often, as a soft X-ray brightening without conspicuous Her signature. In order to investigate to what extent electrons energized in the active region contribute to the noise-storm emission in the overlying coronal structures, we combine radio imaging (Nancay radioheliograph) with X-ray spectral observations at photon energies of a few keV (GOES) and - for the first time - around 10 keV (WATCH/GRANAT). In two of four studied events the WATCH data show a significant excess of the deka-keV count rate above the expectation from an isothermal fit to the GOES fluxes. Although the electron population producing the deka-keV X-ray emission would be energetic enough to power the simultaneous radio noise storm, the much longer duration of the radio emission requires time-extended particle acceleration. The acceleration probably occurs in the corona overlying the X-ray emitting region, triggered by the processes which give rise to the X-ray brightenings.

General information

State: Published

Organisations: Astrophysics, National Space Institute

Authors: Crosby, N. (Ekstern), Vilmer, N. (Ekstern), Lund, N. (Intern), Klein, K. (Ekstern), Sunyaev, R. (Ekstern)

Pages: 333-348

Publication date: 1996

Main Research Area: Technical/natural sciences

Publication information

Journal: Solar Physics

Volume: 167

Issue number: 1-2

ISSN (Print): 0038-0938

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): SJR 1.402 SNIP 1.227 CiteScore 2.62

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 1

Scopus rating (2015): SJR 2.314 SNIP 1.497 CiteScore 3.43

BFI (2014): BFI-level 1

Scopus rating (2014): SJR 2.322 SNIP 1.446 CiteScore 3.37

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 1

Scopus rating (2013): SJR 1.939 SNIP 1.635 CiteScore 3.22

ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 1.121 SNIP 1.201 CiteScore 2.25
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.577 SNIP 1.365 CiteScore 2.78
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 1.847 SNIP 1.26
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 2.042 SNIP 1.34
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 1.542 SNIP 1.304
Scopus rating (2007): SJR 1.438 SNIP 1.198
Scopus rating (2006): SJR 1.48 SNIP 1.297
Scopus rating (2005): SJR 1.656 SNIP 1.587
Scopus rating (2004): SJR 1.343 SNIP 1.463
Scopus rating (2003): SJR 1.303 SNIP 1.376
Scopus rating (2002): SJR 0.99 SNIP 1.036
Scopus rating (2001): SJR 0.976 SNIP 0.775
Scopus rating (2000): SJR 1.349 SNIP 1.122
Scopus rating (1999): SJR 1.604 SNIP 1.12
Original language: English
Source: orbit
Source-ID: 205402
Publication: Research - peer-review › Journal article – Annual report year: 1996

Infrared spectroscopy of the superluminal Galactic source GRS 1915+105 during the 1994 September outburst

We have obtained K-band IR spectra of the superluminal Galactic source GRS 1915+105 on two different dates. The second spectrum, obtained immediately after a bright X-ray outburst in 1994 September, has shown prominent H and He emission lines. The lines are not Doppler shifted, as are those observed in SS 433, suggesting that the ionized regions in the new source are not related to the twin beams of energetic particles that are believed to be responsible for the observed radio lobes. In contrast to Cygnus X-3, where the companion is likely to be a Wolf-Rayet star, we suggest that GRS 1915+105 is likely to be a low-mass X-ray binary. The IR flux probably arises from free-free emission in a wind flowing out of the accretion disk.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: CastroTirado, A. (Ekstern), Geballe, T. (Ekstern), Lund, N. (Intern)
Pages: L99-L101
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal
Volume: 461
Issue number: 2
ISSN (Print): 0004-637X
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 5.26
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 4.8
Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 4.57
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 4.85
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 5.51
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 5.46
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2003): Indexed yes
Web of Science (2002): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
binaries, general, stars, individual (GRS 1915+105), infrared, stars, X-rays, general
Source: orbit
Source-ID: 205405
Publication: Research - peer-review › Journal article – Annual report year: 1996

Long-term X-ray Observations of Galactic Superluminal Sources with GRANAT/WATCH

The authors present X-ray time histories for the radio-jet sources GRS 1915+105 and GRO J1655-40 observed by the GRANAT/WATCH all-sky monitor at 8-20 keV. GRS 1915+105 is extremely variable on the time scales of months to years. The analysis of a 3-year data set gives no evidence for periodicity in its X-ray intensity. The light curve of GRO J1655-40 consists of strong outbursts alternating with periods of low flux.

General information

State: Published
Organisations: Astrophysics, National Space Institute
Authors: Sazonov, S. (Ekstern), Sunyaev, R. (Ekstern), Lund, N. (Intern)
Pages: 187-188
Publication date: 1996

Host publication information

Title of host publication: Roentgenstrahlung from the Universe
Editors: Zimmermann, H., Yorke, H.
Main Research Area: Technical/natural sciences
Conference: International Conference on X-ray Astronomy and Astrophysics: Röntgenstrahlung from the Universe, 01/01/1996
Links:
<http://adsabs.harvard.edu/abs/1996rftu.proc..187S>
Source: orbit
Source-ID: 207572
Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

Status of the Search for Optical Counterparts in GRB Error Boxes from the WATCH Instrument on the GRANAT Satellite

General information

State: Published

Organisations: National Space Institute, Astrophysics, Astronomical Observatory of Nikolaev State University, Nikolaev Astronomical Observatory, Laboratorio de Astrofísica Espacial y Física Fundamental

Authors: Guziy, S. (Ekstern), Shlyapnikov, A. (Ekstern), Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Pages: 485-486

Publication date: 1996

Host publication information

Title of host publication: The Transparent Universe, Proceedings of the 2nd INTEGRAL Workshop

Publisher: European Space Agency, ESA

Main Research Area: Technical/natural sciences

Conference: 2nd INTEGRAL workshop, St. Malo, France, 16/09/1997 - 16/09/1997

Source: dtu

Source-ID: u::6339

Publication: Research - peer-review › Article in proceedings – Annual report year: 1996

A long-term observation of 4U 1700-37 by the granat/watch all-sky monitor

We present the results of the observations of the X-ray source 4U 1700-37 by the WATCH all-sky monitor on GRANAT during the period 1991 to 1992. We have reconstructed light curves of 4U 1700-37 in two energy bands which prove the strong variability of the source's intensity on various time scales. The light curve having been folded with the orbital period clearly reveals a dependence of the source's intensity upon the orbital phase. This dependence can be explained by scattering and absorption of photons in the stellar wind of the massive optical companion. We interpret the X-ray light curves with the help of Monte-Carlo simulations and derive the basic parameters of the stellar wind. We show that the wind in 4U 1700-37 well fits in the radiatively driven stellar wind theory. Our measurement of the mid-eclipse time together with the measurements of other experiments imply a decrease in the period of the binary.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Russian Academy of Sciences, Danish Space Research Institute

Authors: Sazonov, S. (Ekstern), Lapshov, I. (Ekstern), Sunyaev, R. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. (Ekstern)

Pages: (3)87-(3)90

Publication date: 1995

Main Research Area: Technical/natural sciences

Publication information

Journal: Advances in Space Research

Volume: 16

Issue number: 3

ISSN (Print): 0273-1177

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): SJR 0.582 SNIP 1.206 CiteScore 1.63

BFI (2015): BFI-level 1

Scopus rating (2015): SJR 0.602 SNIP 1.329 CiteScore 1.61

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): SJR 0.713 SNIP 1.282 CiteScore 1.61

BFI (2013): BFI-level 1

Scopus rating (2013): SJR 0.677 SNIP 1.289 CiteScore 1.56

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): SJR 0.591 SNIP 1.046 CiteScore 1.2

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.585 SNIP 0.945 CiteScore 1.23
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.616 SNIP 0.864
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.605 SNIP 0.926
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.559 SNIP 0.763
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.41 SNIP 0.641
Scopus rating (2006): SJR 0.464 SNIP 0.681
Scopus rating (2005): SJR 0.443 SNIP 0.705
Scopus rating (2004): SJR 0.376 SNIP 0.651
Scopus rating (2003): SJR 0.279 SNIP 0.473
Scopus rating (2002): SJR 0.288 SNIP 0.509
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 0.26 SNIP 0.403
Scopus rating (2000): SJR 0.333 SNIP 0.318
Scopus rating (1999): SJR 0.361 SNIP 0.424
Original language: English
Source: dtu
Source-ID: n::oai:DTIC-ART:elsevier/82704193::25996
Publication: Research - peer-review › Journal article – Annual report year: 1995

Monitoring the activity variations of galactic X-ray sources with WATCH on EURECA

Among the many instruments carried on the first EURECA mission was also one aimed at doing astrophysical research. This instrument, WATCH, (Wide Angle Telescope for Cosmic Hard X-rays) is sensitive in the 6 to 150 keV energy range and has a total field of view covering a quarter of the sky. During its 11 month operational life, EURECA tracked the Sun, and WATCH gradually scanned across the entire sky. The signals from more than two dozen known galactic X-ray sources have been identified in the data, and the activity state of each source has been recorded as a function of time. For several sources the observation periods extended over more than 100 days. A number of X-ray transients with durations between one and five days were discovered, and, additionally two long duration X-ray transients (GRS 1915+10 and GRO J0422+32) were active and could be monitored. Towards the end of the mission a special "offset pointing" program was initiated on request from the WATCH PI. This program proved very successful and allowed WATCH to scan more than 80% of the sky in the course of only two weeks.

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Brandt, S. (Intern), Lund, N. (Intern)
Pages: (8)37-(8)42
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information

Journal: Advances in Space Research
Volume: 16
Issue number: 8
ISSN (Print): 0273-1177
Ratings:
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.582 SNIP 1.206 CiteScore 1.63

BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.602 SNIP 1.329 CiteScore 1.61
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.713 SNIP 1.282 CiteScore 1.61
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.677 SNIP 1.289 CiteScore 1.56
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.591 SNIP 1.046 CiteScore 1.2
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.585 SNIP 0.945 CiteScore 1.23
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.616 SNIP 0.864
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.605 SNIP 0.926
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.559 SNIP 0.763
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.41 SNIP 0.641
Scopus rating (2006): SJR 0.464 SNIP 0.681
Scopus rating (2005): SJR 0.443 SNIP 0.705
Scopus rating (2004): SJR 0.376 SNIP 0.651
Scopus rating (2003): SJR 0.279 SNIP 0.473
Scopus rating (2002): SJR 0.288 SNIP 0.509
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 0.26 SNIP 0.403
Scopus rating (2000): SJR 0.333 SNIP 0.318
Scopus rating (1999): SJR 0.361 SNIP 0.424
Original language: English
Electronic versions:
1.pdf

Relations

Activities:

30th COSPAR Scientific Assembly

Source: dtu

Source-ID: n::oai:DTIC-ART:elsevier/82705590::25994

Publication: Research - peer-review › Journal article – Annual report year: 1995

Observations of cosmic gamma ray bursts with WATCH on EURECA

19 Cosmic Gamma-Ray Bursts were detected by the WATCH wide field X-ray monitor during the 11 months flight of EURECA. The identification of the bursts were complicated by a high frequency of background of events caused by high energy cosmic ray interactions in the detector and by low energy, trapped particle streams. These background events may simulate the count rate increases characteristic of cosmic gamma bursts. For 12 of the detected events, their true cosmic nature have been confirmed through consistent localizations of the burst sources based on several independent WATCH data sets. The derived positions of the bursts are reported. Additionally, most of the events have been confirmed by coincident detections with instruments on other spacecrafts. The features of two of the bursts and the results of searches for related events in the optical are described.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Laboratorio de Astrofísica Espacial y Física Fundamental

Authors: Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern)

Pages: (8)43-(8)46

Publication date: 1995

Main Research Area: Technical/natural sciences

Publication information

Journal: Advances in Space Research

Volume: 16

Issue number: 8

ISSN (Print): 0273-1177

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): SJR 0.582 SNIP 1.206 CiteScore 1.63

BFI (2015): BFI-level 1

Scopus rating (2015): SJR 0.602 SNIP 1.329 CiteScore 1.61

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): SJR 0.713 SNIP 1.282 CiteScore 1.61

BFI (2013): BFI-level 1

Scopus rating (2013): SJR 0.677 SNIP 1.289 CiteScore 1.56

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): SJR 0.591 SNIP 1.046 CiteScore 1.2

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): SJR 0.585 SNIP 0.945 CiteScore 1.23

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

Scopus rating (2010): SJR 0.616 SNIP 0.864

BFI (2009): BFI-level 1

Scopus rating (2009): SJR 0.605 SNIP 0.926

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Scopus rating (2008): SJR 0.559 SNIP 0.763

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 0.41 SNIP 0.641

Scopus rating (2006): SJR 0.464 SNIP 0.681

Scopus rating (2005): SJR 0.443 SNIP 0.705

Scopus rating (2004): SJR 0.376 SNIP 0.651

Scopus rating (2003): SJR 0.279 SNIP 0.473

Scopus rating (2002): SJR 0.288 SNIP 0.509

Web of Science (2002): Indexed yes

Scopus rating (2001): SJR 0.26 SNIP 0.403

Scopus rating (2000): SJR 0.333 SNIP 0.318

Scopus rating (1999): SJR 0.361 SNIP 0.424

Original language: English

Relations

Activities:

30th COSPAR Scientific Assembly

Source: dtu

Source-ID: n::oai:DTIC-ART:elsevier/82705591::25995

Publication: Research - peer-review › Journal article – Annual report year: 1995

Observations of γ -ray bursts and solar flares with GRANAT

General information

State: Published

Organisations: National Space Institute, Astrophysics, Institute for Space Research, Centre d'Etude Spatiale des Rayonnements, Danish Space Research Institute

Authors: Terekhov, O. (Ekstern), Sunyaev, R. A. (Ekstern), Denisenko, D. (Ekstern), Tkachenko, A. (Ekstern), Barat, C. (Ekstern), Dezalay, J. (Ekstern), Talon, R. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern)

Pages: 353-357

Publication date: 1995

Host publication information

Title of host publication: Flares and Flashes : Proceedings of IAU Colloquium No. 151 Held in Sonneberg, Germany, 5–9 December 1994

Publisher: Springer Berlin Heidelberg

Editors: Greiner, J., Duerbeck, H. W., Gershberg, R. E.

ISBN (Print): 978-3-540-60057-2

ISBN (Electronic): 978-3-540-49420-1

Series: Lecture Notes in Physics. Monographs

Volume: 454

ISSN: 0075-8450

Main Research Area: Technical/natural sciences

Conference: 151st IAU Colloquium on Flares and Flashes, Sonneberg, Germany, 05/12/1994 - 05/12/1994

DOIs:

10.1007/3-540-60057-4_309

Publication: Research - peer-review › Article in proceedings – Annual report year: 1995

Review of GRANAT observations of gamma-ray bursts

The GRANAT observatory was launched into a high apogee orbit on 1 December, 1989. Three instruments onboard GRANAT - PHEBUS, WATCH and SIGMA are able to detect gamma-ray bursts in a very broad energy range from 6 keV up to 100 MeV. Over 250 gamma-ray bursts were detected. We discuss the results of the observations of the time histories and spectral evolution of the detected events provided by the different instruments in different energy ranges. Short Gamma-Ray Bursts (<2 s) have 10 ms structure in their time histories. They have harder energy spectra than the long (> 2 s) events. Evidence of the existence of four differently behaving components in gamma-ray burst spectra is discussed. Statistical properties of the gamma-ray burst sources based on the 5 years of observations with (~ 10⁻⁶ erg/cm²) sensitivity as well as the results of high sensitivity (~ 10⁻⁸ erg/cm²) search for Gamma-Ray Bursts within the SIGMA telescope field of view are reviewed.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Institute for Space Research, Centre d'Etude Spatiale des Rayonnements, Danish Space Research Institute

Authors: Terekhov, O. (Ekstern), Denissenko, D. (Ekstern), Sunyaev, R. (Ekstern), Sazonov, S. (Ekstern), Barat, C. (Ekstern), Dezalay, J. -. (Ekstern), Vedrenne, G. (Ekstern), Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern)

Pages: 31-34

Publication date: 1995

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysics and Space Science

Volume: 231

Issue number: 1-2

ISSN (Print): 0004-640X

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.23
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 1.41
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.84
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 1.75
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 1.31
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 1.12
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Web of Science (2008): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2001): Indexed yes
Original language: English
DOIs:
10.1007/BF00658583
Source: dtu
Source-ID: n::oai:DTIC-ART:springer/141831262::25997
Publication: Research - peer-review › Journal article – Annual report year: 1995

Short-Duration X-ray Transients Observed with WATCH on Granat: Are Some of Them Related to Stellar Flares?

During 1990–92, the *WATCH* all-sky X-ray monitor on *GRANAT* has discovered 6 short-duration X-ray transients. We discuss their possible relationship to peculiar stars. Only one source, GRS 1100-77 seems to be related to a T Tauri star.

General information

State: Published
Organisations: National Space Institute, Astrophysics, Laboratorio de Astrofísica Espacial y Física Fundamental, Institute for Space Research
Authors: Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Lapshov, I. (Ekstern), Sunyaev, R. (Ekstern)
Pages: 158-163
Publication date: 1995

Host publication information

Title of host publication: Flares and Flashes : Proceedings of IAU Colloquium No. 151 Held in Sonneberg, Germany, 5–9 December 1994
Publisher: Springer Berlin Heidelberg
Editors: Greiner, J., Duerbeck, H. W., Gershberg, R. E.
ISBN (Print): 978-3-540-60057-2
ISBN (Electronic): 978-3-540-49420-1

Series: Lecture Notes in Physics. Monographs
Volume: 454
ISSN: 0075-8450
Main Research Area: Technical/natural sciences
Conference: 151st IAU Colloquium on Flares and Flashes, Sonneberg, Germany, 05/12/1994 - 05/12/1994

DOIs:

10.1007/3-540-60057-4_265

Publication: Research - peer-review › Article in proceedings – Annual report year: 1995

Study of WATCH GRB error boxes

We have studied the first WATCH GRB Catalogue of γ -ray Bursts in order to find correlations between WATCH GRB error boxes and a great variety of celestial objects present in 33 different catalogues. No particular class of objects has been found to be significantly correlated with the WATCH GRBs.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Laboratorio de Astrofísica Espacial y Física Fundamental, Nikolaev Astronomical Observatory

Authors: Gorosabel, J. (Ekstern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Guziy, S. (Ekstern), Shlyapnikov, A. (Ekstern)

Pages: 297-301

Publication date: 1995

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysics and Space Science

Volume: 231

Issue number: 1-2

ISSN (Print): 0004-640X

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 1.23

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 1.41

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.84

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.75

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 1.31

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 1.12

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Web of Science (2008): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2001): Indexed yes

Original language: English

DOIs:

10.1007/BF00658636

Source: dtu

Source-ID: n::oai:DTIC-ART:springer/141831315::25998

Publication: Research - peer-review › Journal article – Annual report year: 1995

Time series analysis of bright galactic X-ray sources

We analyze 70 to 110 day data sets from eight bright galactic X-ray binaries observed by WATCH/Eureca, in search of periodic variations. We obtain new epochs for the orbital variation of Cyg X-3 and 4U 1700-37, and confirmation of a dip in Cyg X-1 at superior conjunction of the X-ray star. No evidence for variation at known and candidate periods is seen for Sco X-1, Cyg X-2, and GX 17+2. We set upper limits for variation at other frequencies in those three sources, GX 5-1, and GRS 1915+105.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute

Authors: Priedhorsky, W. C. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Pages: 415-421

Publication date: 1995

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics

Volume: 300

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 2.923 SNIP 1.297

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 2.816 SNIP 1.34

Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
Source: dtu
Source-ID: u::6835
Publication: Research - peer-review › Journal article – Annual report year: 1995

WATCH/GRANAT observations of the x-ray pulsar GX 301-2

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Chichkov, M. A. (Ekstern), Syunyaev, R. A. (Ekstern), Lapshov, I. Y. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. (Ekstern)
Pages: 491-498
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters
Volume: 21
Issue number: 4
ISSN (Print): 1063-7737
Ratings:
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 0.85
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 0.83
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.17
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 1.11
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 0.72
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 0.62
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

Links:

<http://articles.adsabs.harvard.edu/cgi-bin/nph->

[iarticle_query?1995AstL...21..435C&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf](http://articles.adsabs.harvard.edu/cgi-bin/nph-article_query?1995AstL...21..435C&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf)

Source: dtu

Source-ID: u::6942

Publication: Research - peer-review › Journal article – Annual report year: 1995

Wide field monitoring of the X-ray sky using Rotation Modulation Collimators

Wide field monitoring is of particular interest in X-ray astronomy due to the strong time-variability of most X-ray sources. Not only does the time-profiles of the persistent sources contain characteristic signatures of the underlying physical systems, but, additionally, some of the most intriguing sources have long periods of quiescence in which they are almost undetectable as X-ray sources, interspersed with relatively brief periods of intense outbursts, where we have unique opportunities of studying dynamical effects, in, for instance, the evolution of accretion discs. Another question for which wide field monitors may provide key information, is the origin and nature of the cosmic gamma ray bursts. Rotation Modulation Collimators (RMC's) were originally introduced in X-ray astronomy to provide accurate source localizations over extended fields. This role has since been taken over by the grazing incidence telescope systems. The potential of the RMC's as wide field monitors have recently been demonstrated by the WATCH instruments on GRANAT and EURECA. It now appears likely, that for use on large, 3-axis stabilized spacecraft, a pinhole camera system may provide better sensitivity than an RMC-system of corresponding physical dimensions. But due to its simplicity, low data rate, and ability to work on spin stabilized (micro)satellites, the RMC wide field monitor may still have a role to play in the X-ray astronomy of the future.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute

Authors: Lund, N. (Intern), Brandt, S. (Intern)

Pages: 19-24

Publication date: 1995

Main Research Area: Technical/natural sciences

Publication information

Journal: Experimental Astronomy

Volume: 6

Issue number: 4

ISSN (Print): 0922-6435

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 2.14

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 2.3

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 2.26

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 2.28

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 1.8

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 1.92

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Web of Science (2008): Indexed yes
Web of Science (2005): Indexed yes
Web of Science (2004): Indexed yes
Web of Science (2001): Indexed yes
Original language: English
DOIs:
10.1007/BF00419254

Relations

Activities:

International Workshop on Imaging in High Energy Astronomy

Source: dtu

Source-ID: n::oai:DTIC-ART:springer/140979925::25876

Publication: Research - peer-review › Journal article – Annual report year: 1995

Comparison of WATCH and IPN Locations of Gamma-Ray Bursts

The WATCH all sky monitors aboard the Granat and EURECA spacecraft have the capability of independently localizing gamma-ray bursts to error circles whose 3 sigma radii are 1 degree or less. These are the most accurate single-experiment localizations currently achievable. In those cases where both WATCH and one or more experiments from the IPN detect a burst, the localizations may be refined considerably. We have identified approximately 35 bursts between 1991 and 1993 in this category. Some were detected by WATCH, Ulysses, PVO, and BATSE, and so on. We present and compare the locations of some of these bursts.

General information

State: Published

Organisations: National Space Institute, Astrophysics, University of California, Danish Space Research Institute, Max-Planck Institut für Extraterrestrische Physik, Institute for Space Research, Los Alamos Scientific Laboratory, NASA Marshall Space Flight Center, NASA Goddard Space Flight Center, Centre d'Etude Spatiale des Rayonnements

Authors: Hurley, K. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Sommer, M. (Ekstern), Lapshov, I. (Ekstern), Laros, J. (Ekstern), Klebesadel, R. (Ekstern), Fishman, G. (Ekstern), Kouveliotou, C. (Ekstern), Meegan, C. (Ekstern), Cline, T. (Ekstern), Boer, M. (Ekstern), Niel, M. (Ekstern)

Pages: 364-368

Publication date: 1994

Host publication information

Title of host publication: Gamma-Ray Bursts, Proceedings of the 2nd Workshop

Publisher: American Institute of Physics

Editor: Fishman, G. J.

Series: AIP Conference Proceedings

Volume: 307

ISSN: 0094-243X

Main Research Area: Technical/natural sciences

DOIs:

10.1063/1.45896

Relations

Activities:

Gamma Ray Bursts

Publication: Research › Article in proceedings – Annual report year: 1994

Discovery and observations by watch of the X-ray transient GRS 1915+105

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Lapshov, I. (Ekstern), Sunyaev, R. A. (Ekstern), Shlyapnikov, A. A. (Ekstern), Guziy, S. (Ekstern), Pavlenko, E. P. (Ekstern)

Pages: 469-472
Publication date: 1994
Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Journal Supplement Series

Volume: 92

Issue number: 2

ISSN (Print): 0067-0049

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 8.95

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 8.83

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 9

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 9.83

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 14.26

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 11.32

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 1

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Web of Science (2008): Indexed yes

Web of Science (2007): Indexed yes

Web of Science (2006): Indexed yes

Web of Science (2005): Indexed yes

Web of Science (2004): Indexed yes

Web of Science (2003): Indexed yes

Web of Science (2002): Indexed yes

Web of Science (2001): Indexed yes

Web of Science (2000): Indexed yes

Original language: English

Electronic versions:

12.pdf

Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1994ApJS...92..469C&defaultprint=YES&filetype=.pdf

Source: dtu

Source-ID: u::6833

Publication: Research - peer-review › Journal article – Annual report year: 1994

Gamma ray bursts observed with WATCH-EURECA

The WATCH wide field x-ray monitor has the capability of independently locating bright Gamma Ray Bursts to 1° accuracy. We report the preliminary positions of 12 Gamma Ray Bursts observed with the WATCH monitor flown on the ES spacecraft EURECA during its 11 month mission. Also the recurrence of the Soft Gamma Repeater SGR 1900+14 in 1992 is verified.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute

Authors: Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern)

Pages: 13-16

Publication date: 1994

Host publication information

Title of host publication: Gamma-Ray Bursts, Proceedings of the 2nd Workshop

Publisher: American Institute of Physics

Editor: Fishman, G. J.

Series: AIP Conference Proceedings

Volume: 307

ISSN: 0094-243X

Main Research Area: Technical/natural sciences

DOIs:

10.1063/1.45777

Relations

Activities:

Gamma Ray Bursts

Publication: Research › Article in proceedings – Annual report year: 1994

Observations of Galactic Binary X-Ray Sources and Gamma Ray Bursts with WATCH

General information

State: Published

Organisations: National Space Institute, Astrophysics, University of Copenhagen

Authors: Brandt, S. (Intern), Lund, N. (Intern), Hansen, L. (Ekstern)

Number of pages: 283

Publication date: 1994

Publication information

Place of publication: Lyngby

Publisher: Danish Space Research Institute

Original language: English

Series: DRI Report

Volume: 94

Number: 1

ISSN: 0109-6605

Main Research Area: Technical/natural sciences

Publication: Research › Ph.D. thesis – Annual report year: 1994

Optical Follow-Up of Gamma-Ray Bursts Observed by WATCH

44 Gamma-Ray Bursts have been localized by the WATCH experiments on GRANAT and EURECA. For some of them, Schmidt plates were taken within days after the burst. In other cases, time-correlated plates were found in some of the main astronomical archives. No obvious optical counterpart has been found in any of the investigated plates.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute, Astronomical Observatory of Nikolaev State University

Authors: Castro-Tirado, A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Guziy, S. S. (Ekstern)

Pages: 404-407

Publication date: 1994

Host publication information

Title of host publication: Gamma-Ray Bursts, Proceedings of the 2nd Workshop
Publisher: American Institute of Physics
Editor: Fishman, G. J.

Series: AIP Conference Proceedings
Volume: 307
ISSN: 0094-243X
Main Research Area: Technical/natural sciences

Relations

Activities:

Gamma Ray Bursts

Source: dtu

Source-ID: u::6951

Publication: Research › Article in proceedings – Annual report year: 1994

The discovery and observations of the hard x-ray transient source GRS 1009-45 by the WATCH instrument of the GRANAT observatory

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lapshov, I. Y. (Ekstern), Sazonov, S. Y. (Ekstern), Syunyaev, R. A. (Ekstern), Brandt, S. (Intern), Castro-Tirado, A. (Ekstern), Lund, N. (Intern)

Pages: 205-206

Publication date: 1994

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters

Volume: 20

Issue number: 2

ISSN (Print): 1063-7737

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.85

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.83

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.17

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

Electronic versions:

1994AstL__20__205L.pdf

Links:

<http://articles.adsabs.harvard.edu/cgi-bin/nph->

[iarticle_query?1994AstL...20..205L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf](http://articles.adsabs.harvard.edu/cgi-bin/nph-article_query?1994AstL...20..205L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf)

Bibliographical note

Originally published in Russian in: Pis'ma v Astronomicheskii Zhurnal, Vol. 20, p. 250

Source: dtu

Source-ID: u::6940

Publication: Research - peer-review › Journal article – Annual report year: 1994

Two years of observations of the transient X-ray source GRS 1915+105 with the WATCH instrument of the GRANAT Observatory

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Sazonov, S. Y. (Ekstern), Syunyaev, R. A. (Ekstern), Lapshov, I. Y. (Ekstern), Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. (Ekstern)

Pages: 901-905

Publication date: 1994

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters-a Journal of Astronomy and Space Astrophysics

Volume: 20

Issue number: 6

ISSN (Print): 1063-7737

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.85

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.83

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.17

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1994AstL...20..787S&defaultprint=YES&filetype=.pdf

Source: dtu

Source-ID: u::6834

Publication: Research - peer-review › Journal article – Annual report year: 1994

WATCH observations of gamma ray bursts during 1990–1992

The first WATCH/GRANAT Gamma-Ray Burst Catalogue comprises 70 events which have been detected by WATCH during the period December 1989–September 1992. 32 GRBs could be localized within a 3σ error radii of 1° . We have found a weak (2.2σ) clustering of these 32 bursts towards the Galactic Center. However we conclude that there is no strong evidence of concentration of the bursts towards the Galactic Center or Plane. Around $\sim 10\%$ of the 70 bursts showed x-ray precursor or/and X-ray tail. We discuss the possibility that two events, GRB 900126 and GRB 920311, would have been produced by the same source.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute, Russian Academy of Sciences

Authors: Castro-Tirado, A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Lapshov, I. Y. (Ekstern), Terekhov, O. (Ekstern), Sunyaev, R. A. (Ekstern)

Pages: 17-21

Publication date: 1994

Host publication information

Title of host publication: Gamma-Ray Bursts, Proceedings of the 2nd Workshop

Publisher: American Institute of Physics

Editor: Fishman, G. J.

Series: AIP Conference Proceedings

Volume: 307

ISSN: 0094-243X

Main Research Area: Technical/natural sciences

DOIs:

10.1063/1.45785

Relations

Activities:

Gamma Ray Bursts

Publication: Research › Article in proceedings – Annual report year: 1994

4U 0614+09

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern)

Number of pages: 1

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5710

Original language: English

Electronic versions:

IAU_Circular_5710_1993.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05700/05710.html#Item1>

Source: dtu

Source-ID: u::6932

Publication: Research › Journal article – Annual report year: 1993

4U 0614+09 = V1055 Orionis

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern)

Number of pages: 1

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5717

Original language: English

Electronic versions:

IAU_Circular_5717_1993.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05700/05717.html#Item2>

Source: dtu

Source-ID: u::6931

Publication: Research › Journal article – Annual report year: 1993

Discovery of the Optical Counterpart of the Soft X-Ray Transient GRO:J0422+32

We report the discovery of the optical counterpart of the type II Soft X-ray Transient. GRO J0422+32 on 1992 August 15. ten days after the outburst. as well as the optical light curve during the first 100 days after the outburst, making GRO J0422+32 the slowest one in the optical decline. Archival plates searches show that the object did not undergo a similar outburst after 1928. Its optical and X-ray evolution is similar to other members of its class. like V616 Mon. V404 Cyg and GRS 1124-68. For these later three there are dynamical evidences that place them among the best black holes candidates so far. These similarities suggest that the compact object in GRO J0422+32 may also be a black hole.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Pavlenko, E. P. (Ekstern), Shlyapnikov, A. A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Ortiz, J. L. (Ekstern)

Pages: L37-L40

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics

Volume: 276

Issue number: 2/SEP11

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 2.74 SNIP 1.444

Web of Science (2010): Indexed yes

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 2.879 SNIP 1.404

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English

Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1993A%26A...276L...37C&defaultprint=YES&filetype=.pdf

Source: dtu

Source-ID: u::6832

Publication: Research - peer-review › Letter – Annual report year: 1993

GRB J0444-0700

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern)

Number of pages: 1

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5759

Original language: English

Electronic versions:

[IAU_Circular_5759_1993.pdf](#)

Links:

<http://www.cbat.eps.harvard.edu/iauc/05700/05759.html#Item2>

Source: dtu

Source-ID: u::6935

Publication: Research › Journal article – Annual report year: 1993

GRS 0834-43

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5785

Original language: English

Electronic versions:

IAU_Circular_5785_1993.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05700/05785.html#Item1>

Source: dtu

Source-ID: u::6934

Publication: Research › Journal article – Annual report year: 1993

GRS 1915+105**General information**

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Mirabel, I. F. (Ekstern), Duc, P. A. (Ekstern), Teyssier, R. (Ekstern), Paul, J. (Ekstern), Rodriguez, L. F. (Ekstern), Marti, J. (Ekstern), Golombek, D. (Ekstern), Castro-Tirado, A. J. (Ekstern), Davies, J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5830

Original language: English

Electronic versions:

IAU_Circular_5830_1993.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05800/05830.html#Item1>

Source: dtu

Source-ID: u::6930

Publication: Research › Journal article – Annual report year: 1993

GRS 1915+105 and Hercules X-1**General information**

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5779

Original language: English

Electronic versions:

IAU_Circular_5779_1993.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05700/05779.html#Item2>

Source: dtu

Source-ID: u::6933

Publication: Research › Journal article – Annual report year: 1993

Observations of the cosmic gamma-ray burst on 23 July 1992 with the WATCH instrument on the Grant observatory**General information**

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Terekhov, O. V. (Ekstern), Lobachev, V. A. (Ekstern), Denisenko, D. V. (Ekstern), Lapshov, I. Y. (Ekstern), Syunyaev, R. A. (Ekstern), Lund, N. (Intern), Castro-Tirado, A. (Ekstern), Brandt, S. (Intern)
Pages: 276-279
Publication date: 1993
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters

Volume: 19

Issue number: 4

ISSN (Print): 1063-7737

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.85

BFI (2015): BFI-level 1

Scopus rating (2015): CiteScore 0.83

BFI (2014): BFI-level 1

Scopus rating (2014): CiteScore 1.17

BFI (2013): BFI-level 1

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Web of Science (2002): Indexed yes

Original language: English

Electronic versions:

1993AstL__19__276T.pdf

Links:

<http://articles.adsabs.harvard.edu/cgi-bin/nph->

[iarticle_query?1993AstL...19..276T&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf](http://articles.adsabs.harvard.edu/cgi-bin/nph-article_query?1993AstL...19..276T&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf)

Bibliographical note

Originally published in Russian in: Pis'ma v Astronomicheskij Zhurnal (ISSN 0320-0108), vol. 19, no. 8, p. 686-692.

Source: dtu

Source-ID: u::6936

Publication: Research - peer-review › Journal article – Annual report year: 1993

Observations of the x-ray source 4U 1700-37: results from the WATCH instrument on the Grant observatory

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Sazonov, S. Y. (Ekstern), Lapshov, I. Y. (Ekstern), Syunyaev, R. A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. (Ekstern)

Pages: 272-276

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy Letters

Volume: 19

Issue number: 4
ISSN (Print): 1063-7737
Ratings:

BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 0.85
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 0.83
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.17
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 1.11
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 0.72
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 0.62
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Web of Science (2002): Indexed yes
Original language: English
Electronic versions:

1993AstL___19__272S.pdf

Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1993AstL...19..272S&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf

Bibliographical note

Originally published in Russian in: Pis'ma v Astronomicheskij Zhurnal (ISSN 0320-0108), vol. 19, no. 8, p. 675-685.

Source: dtu

Source-ID: u::6937

Publication: Research - peer-review › Journal article – Annual report year: 1993

Two transient X-ray sources observed with the WATCH experiment

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern), Dremin, V. (Ekstern), Lapshov, I. (Ekstern), Sunyaev, R. (Ekstern)

Pages: 257-260

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: Astrophysical Supplement Series

Volume: 97

Original language: English

Electronic versions:

6.pdf

Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1993A%26AS...97..257B&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf

Relations

Activities:

Toulouse International Colloquium

Source: dtu

Source-ID: u::6939

Publication: Research - peer-review › Journal article – Annual report year: 1993

WATCH observations of the X-ray pulsar 301-2

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Dremin, V. (Ekstern), Lapshov, I. (Ekstern), Sunyaev, R. (Ekstern)

Pages: 329-331

Publication date: 1993

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy & Astrophysics Supplement Series

Volume: 97

Issue number: 1

ISSN (Print): 0365-0138

Ratings:

BFI (2008): BFI-level 1

Scopus rating (2003): SJR 1.91 SNIP 2.557

Scopus rating (2002): SJR 1.366 SNIP 2.231

Scopus rating (2001): SJR 1.056 SNIP 0.973

Scopus rating (2000): SJR 1.94 SNIP 1.045

Scopus rating (1999): SJR 2.014 SNIP 1.119

Original language: English

Electronic versions:

5.pdf

Links:

<http://articles.adsabs.harvard.edu/cgi-bin/nph->

[iarticle_query?1993A%26AS...97..329C&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf](http://articles.adsabs.harvard.edu/cgi-bin/nph-article_query?1993A%26AS...97..329C&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf)

Relations

Activities:

Toulouse International Colloquium

Source: dtu

Source-ID: u::6938

Publication: Research - peer-review › Journal article – Annual report year: 1993

A1118-61

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5448

Original language: English

Electronic versions:

IAU_Circular_5448_1992.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05400/05448.html#item1>

Source: dtu
Source-ID: u::6929
Publication: Research › Journal article – Annual report year: 1992

Detection of a type-I X-ray burst from 4U 0614+09

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern), Dremin, V. (Ekstern), Lapshov, I. (Ekstern), Sunyaev, R. (Ekstern)
Pages: L15-L16
Publication date: 1992
Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics
Volume: 262
Issue number: 1
ISSN (Print): 0004-6361
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349

Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English

Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1992A%26A...262L..15B&defaultprint=YES&filetype=.pdf

Source: dtu

Source-ID: u.:6827

Publication: Research › Letter – Annual report year: 1992

Discovery and Early X-Ray Lightcurve of the Transient GRS:1124-68 Nova MUSCAE 1991

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern), Dremin, V. (Ekstern), Lapshov, I. (Ekstern), Sunyaev, R. (Ekstern)

Pages: L39-L41

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: Astronomy and Astrophysics

Volume: 254

Issue number: FEB(I)

ISSN (Print): 0004-6361

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 2.246 SNIP 1.16 CiteScore 3.68

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 2.543 SNIP 1.189 CiteScore 3.5

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 2.823 SNIP 1.219 CiteScore 2.82

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 2.544 SNIP 1.058 CiteScore 2.01

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 2.585 SNIP 1.295 CiteScore 3.14

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.373 SNIP 1.231 CiteScore 3.42
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.74 SNIP 1.444
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.879 SNIP 1.404
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.923 SNIP 1.297
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.816 SNIP 1.34
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 3.224 SNIP 1.349
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.891 SNIP 1.355
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 2.633 SNIP 1.462
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.967 SNIP 1.373
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.742 SNIP 1.346
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.555 SNIP 0.727
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 2.178 SNIP 1.039
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.489 SNIP 1.076
Original language: English
Links:

http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1992A%26A...254L..39B&defaultprint=YES&filetype=.pdf

Source: dtu

Source-ID: u::6828

Publication: Research › Letter – Annual report year: 1992

EU 1737-132

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5643

Original language: English

Electronic versions:

IAU_Circular_5643_1992.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05600/05643.html#Item1>

Source: dtu

Source-ID: u::6927

EU 1902+20 and EU 2017-01

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5659

Original language: English

Electronic versions:

IAU_Circular_5659_1992.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05600/05659.html#Item1>

Source: dtu

Source-ID: u::6926

Publication: Research › Journal article – Annual report year: 1992

GRO J0422+32

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Pavlenko, P. (Ekstern), Salyapikov, A. (Ekstern), Gershberg, R. (Ekstern), Hayrapetyan, V. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5588

Original language: English

Links:

<http://www.cbat.eps.harvard.edu/iauc/05500/05588.html#Item1>

Source: dtu

Source-ID: u::6829

Publication: Research - peer-review › Journal article – Annual report year: 1992

GRO J0422+32 = GRS 0417+335

A. J. Castro-Tirado, S. Brandt, and N. Lund, Granat WATCH team (Danish Space Research Institute, Lyngby; and Space Research Institute, Moscow), report: "The hard x-ray transient reported by Paciesas et al. on IAUC 5580 has been observed by the WATCH all-sky monitor on Granat. The source intensity above 20 keV was 2.5 Crab on Aug. 11.7 UT. The source has been localized to the following position: R.A. = 4h17m.5, Decl. = +33 30' (equinox 1950.0), with a probable error radius of 0.5 deg." R. A. Cameron, Universities Space Research Association; and J. E. Grove, R. A. Kroeger, W. N. Johnson, and J. D. Kurfess, Naval Research Laboratory; on behalf of the Compton Observatory OSSE team, report: "Preliminary analysis of the spectrum of the gamma-ray transient source GRO J0422+32 (IAUC 5580, 5584), derived from OSSE observations between Aug. 11.10 and 12.00 UT, shows the source to have a spectrum similar to, and three times brighter than, the black-hole candidate Cygnus X-1 as observed by OSSE in 1991 June. Significant emission is observed up to about 600 keV, with an average source flux of 1.8 photons cm⁻² s⁻¹ MeV⁻¹ at 100 keV. The continuum spectrum between 60 and 600 keV is not compatible with a single power law. The spectrum over this energy range is well represented by a two-temperature Sunyaev-Titarchuk comptonized plasma emission model (Sunyaev and Titarchuk 1980, A.Ap. 86, 121), with characteristic electron temperatures of 30 and 60 keV. The intensities of these two components are comparable at 100 keV and have optical depths of about 6 and 3, respectively. The OSSE instrument is also collecting event rate data in 8-ms samples on GRO J0422+32. Preliminary analysis of this timing data has shown no evidence for QPO behavior."

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Cameron, R. A. (Ekstern), Grove, J. E. (Ekstern), Kroeger, R. A. (Ekstern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5587

Original language: English

Links:

<http://www.cbat.eps.harvard.edu/iauc/05500/05587.html#Item1>

Source: dtu

Source-ID: u::6830

Publication: Research - peer-review › Journal article – Annual report year: 1992

GRS 1915+105

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5590

Original language: English

Links:

<http://www.cbat.eps.harvard.edu/iauc/05500/05590.html#Item2>

Source: dtu

Source-ID: u::6826

Publication: Research › Journal article – Annual report year: 1992

GRS 2037-404

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Number of pages: 1

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5617

Original language: English

Electronic versions:

IAU_Circular_5617_1992.pdf

Links:

<http://www.cbat.eps.harvard.edu/iauc/05600/05617.html#Item1>

Source: dtu

Source-ID: u::6928

Publication: Research › Journal article – Annual report year: 1992

Observations of an X-ray nova in the Musca constellation by the Watch instrument

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lapshov, I. Y. (Ekstern), Dremin, V. V. (Ekstern), Syunyaev, R. A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. (Ekstern)

Number of pages: 4

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: Soviet Astronomy Letters

Volume: 18

Issue number: 1

Original language: English

Electronic versions:

1992SvAL__18__1L.pdf

Links:

<http://articles.adsabs.harvard.edu/cgi-bin/nph->

[iarticle_query?1992SvAL...18...1L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf](http://articles.adsabs.harvard.edu/cgi-bin/nph-article_query?1992SvAL...18...1L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf)

Bibliographical note

Originally published in Russian in: Pis'ma v Astronomicheskii Zhurnal (ISSN 0320-0108), vol. 18, no. 1, Jan. 1992, p. 3-10

Source: dtu

Source-ID: u::6924

Publication: Research › Journal article – Annual report year: 1992

The discovery and preliminary results of observations of the transient X-ray source GRS 0834 - 43 with the Watch instrument of the GRANAT observatory

The history of discovery and localization of the GRS 0834-430 source with the Watch instrument on Granat is described.

The Light curve of this source for the period January 1990–October 1991 is presented. Outbursts with a period of 114 days are discussed

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lapshov, I. Y. (Ekstern), Dremin, V. V. (Ekstern), Syunyaev, R. A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Pages: 30-36

Publication date: 1992

Main Research Area: Technical/natural sciences

Publication information

Journal: Pis'ma v Astronomicheskii Zhurnal

Volume: 18

Issue number: 1

ISSN (Print): 0320-0108

Ratings:

Web of Science (2017): Indexed Yes

Scopus rating (2016): CiteScore 0.85

Scopus rating (2015): CiteScore 0.83

Scopus rating (2014): CiteScore 1.17

Scopus rating (2013): CiteScore 1.11

ISI indexed (2013): ISI indexed no

Scopus rating (2012): CiteScore 0.72

ISI indexed (2012): ISI indexed no

Scopus rating (2011): CiteScore 0.62

ISI indexed (2011): ISI indexed no

Web of Science (2002): Indexed yes

Original language: English

Links:

<http://articles.adsabs.harvard.edu/cgi-bin/nph->

[iarticle_query?1992SvAL...18...12L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf](http://articles.adsabs.harvard.edu/cgi-bin/nph-article_query?1992SvAL...18...12L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf)

Source: dtu
Source-ID: u::6922
Publication: Research › Journal article – Annual report year: 1992

Two years of observations of the X-ray pulsar VELA X-1 with the Watch instrument of the GRANAT observatory

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Lapshov, I. Y. (Ekstern), Syunyaev, R. A. (Ekstern), Chichkov, M. A. (Ekstern), Dremin, V. V. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)
Number of pages: 4
Pages: 16-19
Publication date: 1992
Main Research Area: Technical/natural sciences

Publication information

Journal: Soviet Astronomy Letters
Volume: 18
Original language: English
Electronic versions:
1992SvAL__18__16L.pdf
Links:
http://articles.adsabs.harvard.edu/cgi-bin/nph-iarticle_query?1992SvAL...18...16L&data_type=PDF_HIGH&whole_paper=YES&type=PRINTER&filetype=.pdf

Bibliographical note

Originally published in Russian in: Pis'ma v Astronomicheskii Zhurnal (ISSN 0320-0108), vol. 18, no. 1, Jan. 1992, p. 37-45.
Source: dtu
Source-ID: u::6923
Publication: Research - peer-review › Journal article – Annual report year: 1992

X-Ray Activity in Cygnus and Aquila

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern), Lund, N. (Intern)
Number of pages: 1
Publication date: 1992
Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)
Issue number: 5664
Original language: English
Electronic versions:
IAUC_5664.pdf
Links:
<http://www.cbat.eps.harvard.edu/iauc/05600/05664.html#Item1>
Source: dtu
Source-ID: u::6925
Publication: Research › Journal article – Annual report year: 1992

Gamma-ray bursts observed by the watch experiment

After two years in orbit the WATCH instruments on the GRANAT space observatory have localized seven gamma burst sources with better than 1° accuracy. In several cases, follow-up observations with Schmidt telescopes have been made within a few days. Some of the bursts have also been detected by the distant space probes PVO and ULYSSES and there are, therefore, good prospects for obtaining much improved positions using the burst arrival times. The existence of the almost concurrent Schmidt plates could then become particularly interesting.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute

Authors: Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern)

Pages: 53-57

Publication date: 1991

Conference: Gamma Ray Bursts, Huntsville, Alabama, United States, 15/10/1991 - 15/10/1991

Main Research Area: Technical/natural sciences

Publication information

Journal: A I P Conference Proceedings Series

Issue number: 265

ISSN (Print): 0094-243X

Ratings:

BFI (2017): BFI-level 1

BFI (2016): BFI-level 1

Scopus rating (2016): CiteScore 0.21 SJR 0.163 SNIP 0.236

BFI (2015): BFI-level 1

Scopus rating (2015): SJR 0.179 SNIP 0.217 CiteScore 0.18

BFI (2014): BFI-level 1

Scopus rating (2014): SJR 0.165 SNIP 0.191 CiteScore 0.17

BFI (2013): BFI-level 1

Scopus rating (2013): SJR 0.16 SNIP 0.173 CiteScore 0.16

ISI indexed (2013): ISI indexed no

BFI (2012): BFI-level 1

Scopus rating (2012): SJR 0.17 SNIP 0.176 CiteScore 0.14

ISI indexed (2012): ISI indexed no

BFI (2011): BFI-level 1

Scopus rating (2011): SJR 0.153 SNIP 0.141 CiteScore 0.12

ISI indexed (2011): ISI indexed no

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

Scopus rating (2010): SJR 0.16 SNIP 0.144

BFI (2009): BFI-level 1

Scopus rating (2009): SJR 0.157 SNIP 0.137

BFI (2008): BFI-level 1

Scopus rating (2008): SJR 0.162 SNIP 0.112

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 0.157 SNIP 0.125

Scopus rating (2006): SJR 0.157 SNIP 0.121

Scopus rating (2005): SJR 0.157 SNIP 0.187

Scopus rating (2004): SJR 0.122 SNIP 0

Web of Science (2004): Indexed yes

Scopus rating (2003): SJR 0.416 SNIP 0.765

Scopus rating (2002): SJR 2.677 SNIP 1.594

Web of Science (2001): Indexed yes

Original language: English

DOIs:

10.1063/1.42778

Source: dtu

Source-ID: u::6921

Publication: Research > Conference article – Annual report year: 1991

GRS 1217+066

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. (Ekstern)
Number of pages: 1
Publication date: 1991
Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)
Issue number: 5207
Original language: English
Electronic versions:
IAUC_5207.pdf
Links:
<http://www.cbat.eps.harvard.edu/iauc/05200/05207.html#Item2>
Source: dtu
Source-ID: u::6920
Publication: Research › Journal article – Annual report year: 1991

GRS 1715-44

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Lund, N. (Intern), Brandt, S. (Intern), Castro-Tirado, A. J. (Ekstern)
Number of pages: 1
Publication date: 1991
Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)
Issue number: 5405
Original language: English
Electronic versions:
IAUC_5405.pdf
Links:
<http://www.cbat.eps.harvard.edu/iauc/05400/05405.html>
Source: dtu
Source-ID: u::6918
Publication: Research › Journal article – Annual report year: 1991

GRS 1943-052

General information

State: Published
Organisations: National Space Institute, Astrophysics
Authors: Lund, N. (Intern), Castro-Tirado, A. J. (Ekstern), Brandt, S. (Intern)
Number of pages: 1
Publication date: 1991
Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)
Issue number: 5370
Original language: English
Electronic versions:
IAUC_5370.pdf
Links:
<http://www.cbat.eps.harvard.edu/iauc/05300/05370.html#Item2>
Source: dtu
Source-ID: u::6919
Publication: Research › Journal article – Annual report year: 1991

Looking for optical emission from gamma-ray bursters.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Boer, M. (Ekstern), Motch, C. (Ekstern), Pedersen, H. (Ekstern), Brandt, S. (Intern), Castro Tirado, A. J. (Ekstern), Lund, N. (Intern), Smette, A. (Ekstern)

Pages: 61-62

Publication date: 1991

Main Research Area: Technical/natural sciences

Publication information

Journal: The Messenger

Volume: 66

Ratings:

ISI indexed (2013): ISI indexed no

ISI indexed (2012): ISI indexed no

ISI indexed (2011): ISI indexed no

Original language: English

Source: dtu

Source-ID: u::6917

Publication: Research › Journal article – Annual report year: 1991

Observations of Nova Muscae with the WATCH Instrument

A new bright transient x-ray source was discovered by WATCH instrument on board GRANAT spacecraft on January 8, 1991. Maximum flux from the newly discovered source was 2 Crab units in 8-20 keV spectral band. During January 16-21 WATCH detected the dip in the light curve of the x-ray Nova. On January 16, 1991 the flux decreased to half that of the Crab. In five days the source became brighter again. Light curves in two energy bands are presented.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Institute for Space Research

Authors: Lapshov, I. Y. (Ekstern), Dremin, V. V. (Ekstern), Sunyaev, R. A. (Ekstern), Brandt, S. (Intern), Lund, N. (Intern)

Pages: 11-17

Publication date: 1991

Host publication information

Title of host publication: Proceedings of the Workshop on Nova Muscae 1991 : Lyngby, May 14-16 1991

Place of publication: Lyngby

Publisher: Danish Space Research Institute

Editor: Brandt, S.

Series: DRI Report

Volume: 91

Number: 2

ISSN: 0109-6605

Main Research Area: Technical/natural sciences

Workshop: Workshop on Nova Muscae 1991, Lyngby, Denmark, 14/05/1991 - 14/05/1991

Relations

Activities:

Workshop on Nova Muscae 1991

Publication: Research - peer-review › Article in proceedings – Annual report year: 1991

The Early Time History of Nova Muscae 1991

Nova Muscae 1991 (GRS 1121-684) was discovered by the Watch all-sky x-ray monitor in January 1991, shortly after the start of the outburst. The observations reported here cover part of the initial rise to maximum light in the 6-100 keV range, and the first two weeks of decline. During this period a secondary outburst was seen.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute, Institute for Space Research

Authors: Brandt, S. (Intern), Lund, N. (Intern), Castro-Tirado, A. (Ekstern), Lapshov, I. Y. (Ekstern), Sunyaev, R. A. (Ekstern), Dremin, V. V. (Ekstern)

Pages: 1-10

Publication date: 1991

Host publication information

Title of host publication: Proceedings of the Workshop on Nova Muscae 1991 : Lyngby, May 14-16 1991

Place of publication: Lyngby

Publisher: Danish Space Research Institute

Editor: Brandt, S.

Series: DRI Report

Volume: 91

Number: 2

ISSN: 0109-6605

Main Research Area: Technical/natural sciences

Workshop: Workshop on Nova Muscae 1991, Lyngby, Denmark, 14/05/1991 - 14/05/1991

Relations

Activities:

Workshop on Nova Muscae 1991

Publication: Research - peer-review › Article in proceedings – Annual report year: 1991

X-Ray Transient in Musca (GRS 1121-68 = GS 1124-683)

Research Institute, Lyngby; and Space Research Institute, Moscow), report: "A new x-ray source in Musca, GRS 1121-68, has been discovered in data obtained by the WATCH detectors on Jan. 9. The spectrum of the source was harder than that of the Crab nebula, and the flux was about twice that from the Crab and increasing slowly during the observation. The source remained at a constant intensity level on Jan. 10. On Jan. 5 this source was not bright enough to be detectable by WATCH. The preliminary position is R.A. = 11h21m, Decl. = -68.1 deg (equinox 1950.0; uncertainty about 1 deg). We have not found any catalogued hard x-ray sources within our error circle; however, close to the given position, we have noted the existence of a radio pulsar (at R.A. = 11h10m, Decl. = -69 deg) with a period of 0.8 s, and a gamma-ray burst source, GRB 820829B, detected by Venera 13/14 in 1982. We have not detected any strong pulsations from the new source, but the time resolution of the available data does not allow a search for pulsations with periods shorter than about 20 s." F. Makino and the Ginga Team, Institute of Space and Astronautical Science, telex: "A bright transient x-ray source, designated GS 1124-683, was discovered with the All Sky X-ray Monitor (ASM) aboard Ginga on Jan. 8. The position determined by combining the ASM position with the line position obtained by scanning with the Large Area Proportional Counters (LAC) is R.A. = 11h24m.6, Decl. = -68 18' (equinox 1950.0). The corners of the error box are 11h23m.9, -68 08'; 11h23m.7, -68 20'; 11h25m.4, -68 37'; and 11h25m.6, -68 16'. The x-ray flux was about 0.8 Crab on Jan. 8.8 UT and 2.2 Crab on Jan. 11.04, observed with the ASM and LAC, respectively. The spectrum was of power-law type with index of about -2.3. No pulsation was observed in the period range 0.12-30 s. Optical observation is urged." R. H. McNaught, University of Adelaide, reports that A. Jones, Nelson, N.Z., found nothing to mag about 10 in a visual search of the region on Jan. 11.4 UT. R. M. West, European Southern Observatory, reports that a 10-min GPO astrograph plate was taken as La Silla, showing no new object in the 2 x 2 deg field brighter than mag 7-8; a search plate will be taken with the Schmidt telescope at La Silla.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Lund, N. (Intern), Brandt, S. (Intern), Makino, F. (Ekstern), McNaught, R. H. (Ekstern), Jones, A. (Ekstern), West, R. M. (Ekstern)

Number of pages: 1

Publication date: 1991

Main Research Area: Technical/natural sciences

Publication information

Journal: International Astronomical Union Circulars (IAUC)

Issue number: 5161

Original language: English

Links:

<http://www.cbat.eps.harvard.edu/iauc/05100/05161.html#Item1>

Source: dtu

Source-ID: u::6831

Publication: Research - peer-review › Journal article – Annual report year: 1991

The WATCH All-Sky Monitor for the Granat Project

The Watch X-ray all-sky monitor, which is designed to localize strong X-ray sources and follow their development, is examined, focusing on the addition of four Watch units to the Granat satellite project. The components of the Watch instrument are described and the capabilities and potential scientific returns of the Granat project are discussed. The applications of the Watch monitor are given, including the study of time variations of known sources and the detection and localization of new, transient sources.

General information

State: Published

Organisations: National Space Institute, Astrophysics, Danish Space Research Institute

Authors: Brandt, S. (Intern), Lund, N. (Intern), Rao, A. R. (Ekstern)

Pages: 239-242

Publication date: 1990

Main Research Area: Technical/natural sciences

Publication information

Journal: Advances in Space Research

Volume: 10

Issue number: 2

ISSN (Print): 0273-1177

Ratings:

BFI (2017): BFI-level 1

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 1

Scopus rating (2016): SJR 0.582 SNIP 1.206 CiteScore 1.63

BFI (2015): BFI-level 1

Scopus rating (2015): SJR 0.602 SNIP 1.329 CiteScore 1.61

Web of Science (2015): Indexed yes

BFI (2014): BFI-level 1

Scopus rating (2014): SJR 0.713 SNIP 1.282 CiteScore 1.61

BFI (2013): BFI-level 1

Scopus rating (2013): SJR 0.677 SNIP 1.289 CiteScore 1.56

ISI indexed (2013): ISI indexed yes

Web of Science (2013): Indexed yes

BFI (2012): BFI-level 1

Scopus rating (2012): SJR 0.591 SNIP 1.046 CiteScore 1.2

ISI indexed (2012): ISI indexed yes

Web of Science (2012): Indexed yes

BFI (2011): BFI-level 1

Scopus rating (2011): SJR 0.585 SNIP 0.945 CiteScore 1.23

ISI indexed (2011): ISI indexed yes

Web of Science (2011): Indexed yes

BFI (2010): BFI-level 1

Scopus rating (2010): SJR 0.616 SNIP 0.864

BFI (2009): BFI-level 1

Scopus rating (2009): SJR 0.605 SNIP 0.926

Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1

Scopus rating (2008): SJR 0.559 SNIP 0.763

Web of Science (2008): Indexed yes

Scopus rating (2007): SJR 0.41 SNIP 0.641

Scopus rating (2006): SJR 0.464 SNIP 0.681

Scopus rating (2005): SJR 0.443 SNIP 0.705

Scopus rating (2004): SJR 0.376 SNIP 0.651

Scopus rating (2003): SJR 0.279 SNIP 0.473

Scopus rating (2002): SJR 0.288 SNIP 0.509

Web of Science (2002): Indexed yes

Scopus rating (2001): SJR 0.26 SNIP 0.403

Scopus rating (2000): SJR 0.333 SNIP 0.318

Scopus rating (1999): SJR 0.361 SNIP 0.424

Original language: English

Electronic versions:

The_WATCH_All_Sky_Monitor_for_the_Granat_Project.pdf

DOIs:

10.1016/0273-1177(90)90148-S

Links:

<http://Sky Monitor for the Granat Project>

Source: dtu

Source-ID: u::6871

Publication: Research - peer-review › Journal article – Annual report year: 1990

Solar and stellar flare observations using WATCH

The Danish experiment WATCH (Wide Angle Telescope for Cosmic Hard X-rays) is to be flown on board the Soviet satellite GRANAT in middle of 1989. The performance characteristics of the WATCH instrument is described. It is estimated that WATCH can detect about 100 solar hard X-ray bursts per day. WATCH can also detect about 40 energetic stellar soft X-ray flares, similar to the fast transient X-ray emissions detected by the Ariel V satellite.

General information

State: Published

Organisations: National Space Institute, Astrophysics

Authors: Brandt, S. (Intern), Lund, N. (Intern), Rao, A. R. (Ekstern)

Pages: 33-36

Publication date: 1989

Host publication information

Title of host publication: Solar and stellar flares : Proceedings of the 104th Colloquium of the International Astronomical Union held in Stanford, California, August 15–19, 1988

Volume: Poster Papers

Publisher: Springer

Editors: Haisch, B. M., Rodonò, M.

Main Research Area: Technical/natural sciences

Conference: 104th IAU Colloquium on Solar and Stellar Flares, Stanford, CA, United States, 15/08/1988 - 15/08/1988

Publication: Research - peer-review › Article in proceedings – Annual report year: 1989

Projects:

LOFT, the Large Observatory For X-ray Timing

LOFT, the Large Observatory For X-ray Timing, is a proposed space mission intended to answer fundamental questions about the motion of matter orbiting close to the event horizon of a black hole, and the state of matter in neutron stars. LOFT was in 2011 selected by ESA as one of the four space missions concepts of the Cosmic Vision programme that will compete for a launch opportunity at the start of the 2020s.

The LOFT payload module will host two instruments: the Large Area Detector (LAD) and the Wide Field Monitor (WFM).

The LAD will improve upon the effective area of the largest area X-ray instrument ever flown (the Rossi X-ray Timing Explorer's Proportional Counter Array) by a factor of about 20. The improved energy resolution (better than 260 eV) of the LAD will allow the exploitation of spectral diagnostics of relativistically-broadened 6-7 keV (Fe-K) lines, in particular. It will be deployed through a mechanism based on that used for Synthetic Aperture Radar missions, such as the Soil Moisture and Ocean Salinity (SMOS) mission, where very large panels are deployed in space with high accuracy.

The Wide Field Monitor (WFM) will discover and localise X-ray transients and impulsive events and monitor spectral state changes with unprecedented sensitivity. Targeted follow-up observations will make this resource important in its own right.

DTU Space is heading the european team planning to provide the Wide Field Monitor instrument.

National Space Institute

Astrophysics

Electronic Engineering

Period: 15/02/2011 → ...

Number of participants: 6

Acronym: LOFT

Project participant:

Budtz-Jørgensen, Carl (Intern)

Lund, Niels (Intern)

Kuvvetli, Irfan (Intern)
Hansen, Flemming (Intern)
Project Manager, organisational:
Pedersen, Søren Møller (Intern)
Project Manager, academic:
Brandt, Søren (Intern)

Relations

Activities:

Observing GRBs with the LOFT Wide Field Monitor

Publications:

The Science Payload of the LOFT Mission

Probing the emission physics and weak/soft population of Gamma-Ray Bursts with LOFT. White Paper in Support of the Mission Concept of the Large Observatory for X-ray Timing

The LOFT wide field monitor

The LOFT (Large Observatory for X-ray Timing) background simulations

Accelerator experiments with soft protons and hyper-velocity dust particles: application to ongoing projects of future X-ray missions

The LOFT Burst Alert System and its Burst On-board Trigger

LOFT - The large observatory for x-ray timing

Observing GRBs with the LOFT Wide Field Monitor

High-energy radiation from thunderstorms and lightning with LOFT. White Paper in Support of the Mission Concept of the Large Observatory for X-ray Timing.

Background simulations for the Large Area Detector onboard LOFT

The LOFT Ground Segment

The Large Observatory For x-ray Timing

The design of the wide field monitor for LOFT

The LOFT wide field monitor simulator

LOFT - The Large Observatory for X-ray Timing

The Large Observatory for X-ray Timing (LOFT)

Simulations of the x-ray imaging capabilities of the silicon drift detectors (SDD) for the LOFT wide-field monitor

Project

Ultra-Fast Flash Observatory, UFFO

The Ultra-Fast Flash Observatory pathfinder (UFFO-p) is a new space mission dedicated to detect Gamma-Ray Bursts (GRBs) and rapidly follow their afterglows in order to provide early optical/ultraviolet measurements.

National Space Institute

Astrophysics and Atmospheric Physics

Sungkyunkwan University

Moscow Lomonosov State University

Instituto de Astrofísica de Andalucía

University of Valencia

National Taiwan University

National Space Organization

Korea Advanced Institute of Science & Technology

Period: 01/01/2010 → ...

Number of participants: 3

Acronym: UFFO

Project participant:

Brandt, Søren (Intern)

Budtz-Jørgensen, Carl (Intern)

Lund, Niels (Intern)

Relations

Activities:

Workshop on GRB with Lomonosov & the UFFO meeting

University Satellites: Lomonosov, RELEC, Tatiana

Publications:

Ultra-Fast Flash Observatory for the observation of early photons from gamma-ray bursts

Development of Motorized Slewing Mirror Stage for the UFFO Project

Testing and Performance of UFFO Burst Alert & Trigger Telescope

Calibration and Simulation of the GRB trigger detector of the Ultra Fast Flash Observatory

In-Flight Calibrations of UFFO-Pathfinder

Ultra-Fast Flash Observatory for observation of early photons from gamma ray bursts

Ultra-fast flash observatory for detecting the early photons from gamma-ray bursts

Ultra-Fast Flash Observatory: Fast Response Space Missions for Early Time Phase of Gamma Ray Bursts

The Status of the Ultra Fast Flash Observatory - Pathfinder

The slewing mirror telescope of the Ultra Fast Flash Observatory Pathfinder

A next generation Ultra-Fast Flash Observatory (UFFO-100) for IR/optical observations of the rise phase of gamma-ray bursts

Update on The Ultra-Fast Flash Observatory (UFFO) Pathfinder

The Uffo Slewing Mirror Telescope for Early Optical Observation from Gamma Ray Bursts

Design and implementation of the UFFO burst alert and trigger telescope

Observation of early photons from gamma-ray bursts with the Lomonosov / UFFO-pathfinder

Design and Fabrication of Detector Module for UFFO Burst Alert & Trigger Telescope

The UFFO slewing mirror telescope for early optical observation from gamma ray bursts

Slewing Mirror Telescope optics for the early observation of UV/optical photons from Gamma-Ray Bursts

Slewing Mirror Telescope and the Data-Acquisition System for the UFFO-Pathfinder

Readout of the UFFO Slewing Mirror Telescope to detect UV/optical photons from Gamma-Ray Bursts

The UFFO (Ultra Fast Flash Observatory) Pathfinder: Science and Mission

Inverted-conical light guide for crosstalk reduction in tightly-packed scintillator matrix and MAPMT assembly

Development of Slewing Mirror Telescope Optical System for the UFFO-pathfinder

Design and implementation of electronics and data acquisition system for Ultra-Fast Flash Observatory

The Ultra-Fast Flash Observatory's space GRB mission and science

Ultra-Fast Flash Observatory (uffo) for Observation of Early Photons from Gamma Ray Bursts

The readout system and the trigger algorithm implementation for the UFFO Pathfinder

Project

The JEM-X X-ray monitor on INTEGRAL

Integral is the first space observatory that can simultaneously observe objects in gamma rays, X-rays and visible light. Its principal targets are violent explosions known as gamma-ray bursts, powerful phenomena such as supernova explosions, and regions in the Universe thought to contain black holes.

DTU Space has provided 2 X-ray monitor instruments, JEM-X to INTEGRAL.

INTEGRAL was launched on Oct 17, 2002. The mission is currently approved by ESA until the end of 2014.

The INTEGRAL mission was approved by ESA in 1994, and launched in 2002. The mission is currently approved by ESA until the end of 2014. ESA will by June 2013 decide if the mission will further be extended until the end of 2016.

National Space Institute

Astrophysics

Period: 17/10/2002 → ...

Number of participants: 6

Project participant:

Chenevez, Jérôme (Intern)

Westergaard, Niels Jørgen Stenfeldt (Intern)

Oxborrow, Carol Anne (Intern)

Budtz-Jørgensen, Carl (Intern)

Lund, Niels (Intern)
Project Manager, academic:
Brandt, Søren (Intern)

Relations

Activities:

INTEGRAL's journey through the high energy sky
Gamma and X-ray astronomy - a personal perspective
9th INTEGRAL Workshop (External organisation)
Press / Media items:
Interview på DR P1 Videnskabens verden
Project

Activities:

Blue Planet arrangement

Period: 12 Sep 2006

Niels Lund (Speaker)

National Space Institute

Description

Place: Rockefeller Komplekset, København Ø.

Related external organisation

Unknown external organisation

Activity: Talks and presentations › Conference presentations

Sorte huller - hvad er det?

Period: 1 Oct 2005

Niels Lund (Speaker)

National Space Institute

Astrophysics

Description

Place: Kulturnatten, Rumcenteret

Related external organisation

Unknown external organisation

Activity: Talks and presentations › Conference presentations

Sorte huller

Period: 1 Mar 2005

Niels Lund (Speaker)

National Space Institute

Astrophysics

Description

Place: Montebello-observatoriet, Helsingør

Related external organisation

Unknown external organisation

Activity: Talks and presentations › Conference presentations

An X-ray perspective on a gamma-ray mission

Period: 25 May 2003 → 28 May 2003

Niels Lund (Participant)

National Space Institute

Astrophysics

Description

Note: Frascati Workshop

Place: Vulcano, Italy

Related external organisation**Unknown external organisation**

Activity: Talks and presentations › Conference presentations

The optical/near-IR spectral energy distribution of the GRB 000210 host galaxy

Period: 1 Jan 2002 → ...

Niels Lund (Speaker)

National Space Institute

Astrophysics

Related event**The optical/near-IR spectral energy distribution of the GRB 000210 host galaxy**

01/01/2002 → ...

Rome

Activity: Participating in or organising an event › Participating in or organising workshops, courses, seminars etc.

Hvor kommer kosmisk stråling fra?

Period: 1 Oct 2000

Niels Lund (Speaker)

National Space Institute

Astrophysics

Description

Place: Danish Space Research Institute

Related external organisation**Unknown external organisation**

Activity: Talks and presentations › Conference presentations

Sorte huller

Period: 30 Sep 2000 → 1 Oct 2000

Niels Lund (Speaker)

National Space Institute

Astrophysics

Description

Note: Lecture in connection with "Dansk Naturvidenskabsfestival"

Place: Danish Space Research Institute

Related external organisation**Unknown external organisation**

Activity: Talks and presentations › Conference presentations

Gamma-ray bursts

Period: 6 Feb 1999 → 11 Feb 1999

Niels Lund (Speaker)

National Space Institute

Astrophysics

Description

Note: Presentation and poster at the workshop

Related event**Gamma Ray Bursts: The first three minutes**

06/02/1999 → 11/02/1999

Gräftavallen, Sweden

Activity: Participating in or organising an event › Participating in or organising workshops, courses, seminars etc.

Micro-Ballerina - a Danish microsatellite ?

Period: 3 Jun 1998

Niels Lund (Participant)

National Space Institute

Astrophysics

Description

Place: Danish Physical Society's annual meeting, Nyborg Strand

Related external organisation**Unknown external organisation**

Activity: Talks and presentations › Conference presentations

Opportunities with INTEGRAL

Period: 3 Jun 1998

Niels Lund (Speaker)

National Space Institute

Astrophysics

Description

Place: Danish Physical Society's annual meeting, Nyborg Strand

Related external organisation**Unknown external organisation**

Activity: Talks and presentations › Conference presentations