



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Laura Bandiera**

Work experience

Dates	03/2015 →
Occupation or position held	Post-doc position
Main activities and responsibilities	Research activity within the CRYSBREAM project financed by European Research Council (ERC) and within CERN-UA9 and CHANEL experiments financed by the Italian Institute for Nuclear Physics (INFN)
Name and address of employer	INFN –Section of Ferrara Via Saragat 1, 44122 Ferrara (FE) (Italy)
Dates	03/2016 →
Occupation or position held	Visiting lecturer
Main activities and responsibilities	Lectures on physics exercises in General Physics I (Classical Mechanics and Thermodynamics) for the Undergrad. Course in Electronic and Computer Engineering.
Name and address of employer	Università degli Studi di Ferrara Via Savonarola 9, 44122 Ferrara (FE) (Italy)
Occupation or position held	Tutor in General Physics II (Electromagnetism) for the Undergrad. Course in Mechanical Engineering (prof. G. Zavattini)
Main activities and responsibilities	Lectures on physics exercises. Helping students in solving problems.
Name and address of employer	Università degli Studi di Ferrara Via Savonarola 9, 44122 Ferrara (FE) (Italy)
Dates	10/2012 →02/2013
Occupation or position held	Tutor in General Physics I (Classical Mechanics and Thermodynamics) for the Undergrad. Course in Electronic and Computer Engineering (prof. D. Vincenzi)
Main activities and responsibilities	Lectures on physics exercises. Helping students in solving problems.
Name and address of employer	Università degli Studi di Ferrara Via Savonarola 9, 44121 Ferrara (FE) (Italy)

Educational training

Dates	01/01/2012 →02/27/2015
Title of qualification awarded	PhD in Solid State Physics (Excellent)
Principal subjects/occupational skills covered	<ul style="list-style-type: none">- PhD Thesis: "Study of coherent interactions between charged particle beams and crystals for beam steering and intense electromagnetic radiation generation";- Theoretical investigation of <i>channeling</i> of high-energy particle beams in bent silicon crystals, in particular of coherent radiation emitted by high-energy electrons and positrons in bent and unbent crystals;-Data analysis in experiments concerning coherent interactions of charged particles with crystalline structures (UA9 experiment at CERN SPS; INFN COHERENT, ICE-RAD experiments at CERN SPS and at the MAInzer MIcrotron at the University of Mainz);-Development of a C++ routine for the computation of coherent radiation generation by electrons and positrons in crystals, e.g. Channeling Radiation and Coherent Bremsstrahlung.

Name and type of organisation providing education and training	Università degli Studi di Ferrara Via Savonarola 9, 44121 Ferrara (FE) (Italy)
Level in national or international classification	ISCED 6
Dates	09/2007 - 10/2011
Title of qualification awarded	Master's Degree in Physical Sciences summa cum laude Curriculum in Nuclear and Sub-nuclear Physics
Principal subjects/occupational skills covered	Master's Thesis "Analysis of radiation emitted by electrons and positrons through multiple volume reflections in a bent silicon crystal", concerning the data analysis of new a new type of electromagnetic radiation generation by using the CERN-ROOTanalysis framework. The work has been done in the framework of the INFN-COHERENT experiment.
Name and type of organisation providing education and training	Università degli Studi di Ferrara Via Savonarola 9, 44121 Ferrara (FE), Italy
Level in national or international classification	ISCED 5a
Dates	09/2002 - 07 /2007
Title of qualification awarded	Bachelor's Degree in Physical and Astrophysical Sciences summa cum laude.
Principal subjects/occupational skills covered	Bachelor's Degree Thesis " Sviluppo di un sistema di lettura catodica a pixel per rivelatori di muoni", concerning the study and development of a Cathode-Pixel Readout for muon detectors in High-Energy Physics experiments (e.g. BaBar at the Stanford Linear Accelerator, Menlo Park, CA, USA), with the aim of discriminate the double tracks in a typical Cathode-Strip Readout.
Name and type of organisation providing education and training	Università degli Studi di Ferrara Via Savonarola 9, 44121 Ferrara (FE) (Italy)
Level in national or international classification	ISCED 5
Dates	09/1997 - 06/2002
Title of qualification awarded	High school specialized in scientific subjects (100/100)
Name and type of organisation providing education and training	Liceo Scientifico Statale "Morando Morandi", Via Digione, 20 41034 Finale Emilia (Mo) Italy
Level in national or international classification	ISCED 3

Personal skills and Competences

Mother tongue(s) **Italian**

Other language(s) **English**

European level ()*

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	FCE certification	B2	FCE certification	B2	FCE certification	B2	FCE certification	B2	FCE certification

(*) [Common European Framework of Reference \(CEF\) level](#)

Computer skills and competences	<ul style="list-style-type: none"> - Programming language (C, C++ and Fortran90, LateX); - Operating system (Windows™, LINUX); - Data Analysis Software (CERN ROOT, OriginLab); - Personal productivity software (Microsoft Office™ Word™, Excel™, PowerPoint™); - Digital picture editing software (PhotoShop™);
Driving Licence	B
Scientific Research and Formation activities	<p>The candidate has been operating for more than 4 years at the Sensors and Semiconductors Laboratory of the University of Ferrara under the supervision of Prof. Vincenzo Guidi, from March to October 2011 as a graduate student, from January 2012 to February 2015 as a PhD student and from March 2015 to now as a Post Doc student.</p> <p>The main topics related to the PhD project focused on the study of phenomena of coherent interaction of charged particle beams with crystalline structures, in particular on channeling and volume reflection. Possible applications of these phenomena have been also investigated, such as innovative solutions for beam collimations in colliders of new generation and new intense X- or gamma sources. In 2012, LB (Laura Bandiera) joined the UA9 collaboration at CERN (INFN CSN 1), which has the main purpose to design a bent-crystal-based beam collimation for the Large Hadron Collider in CERN in Geneva. In the framework of the UA9 collaboration, LB took parts of several data takings on the extracted line H8 at CERN-Super Proton Synchrotron and is also involved in the H8-data analysis.</p> <p>LB has been also involved in the INFN- National Scientific Committee V experiments led by Prof. Vincenzo Guidi, i.e., the COHERENT (2011-2012), the ICE-RAD (2013-2014) and the CHANEL (2015-) experiments. Such experiments have been dedicated not only to beam steering and collimation, but also to the investigation of the electromagnetic radiation emitted by electrons/positrons in bent crystals for a possible intense X- or gamma-source. Indeed, it is well known that the electromagnetic radiation emitted by e^\pm in crystals is more intense than the common bremsstrahlung in amorphous materials. Part of the work of LB has been dedicated to investigate the possibility of combining the beam steering and high-intensity radiation generation in bent crystals for new applications, such as the collimation of future electrons and positrons colliders, e.g., ILC and FCC. LB actively participated in various campaigns of measurements performed in various accelerator machines; the H4-H8 extracted lines from the CERN-SPS, the Mainzer Mikrotron at the Mainz University, the End Station B at the Stanford Linear Accelerator Centre (SLAC) and the AN2000 at the National Laboratories of Legnaro. In the framework of the CSN V experiment, the LB main activities concerned the data analysis and interpretation. The results of this work were presented by LB in several International Workshops and Conferences. LB dedicated part of her time in drafting of scientific papers that then were published in international peer-review physics journals. Moreover, LB is the first author of some of the published papers.</p> <p>Finally, LB was also involved in international collaborations, such as the ERC-Marie Curie FP7-CUTE project, the X1 collaboration in Mainz and the T513, T523 experiments at SLAC. Currently, LB is the contact person of the ERC-Marie Curie H2020 -PEARL project and the technical coordinator of the CHANNEL experiment carried out on the H4 extracted line from SPS at CERN.</p>
Seminars held	<p>[S01] <i>Experiments on coherent interactions between ultra-relativistic charged-particle beams and short bent crystals</i>, University of Kharkiv, Kharkiv (Ukraine) October 25, 2013.</p> <p>[S02] <i>Last experimental results on coherent interactions between charged particle beams and bent crystals</i>, Akhiezer institute for theoretical physics, Kharkiv (Ukraine) October 25, 2013.</p> <p>[S03] <i>Study of coherent interactions between charged particle beams and crystals for beam steering and intense e.m. radiation generation</i>, Stanford Linear Accelerator Centre, Menlo Park, California (USA) July 10, 2015.</p>

Formation during and after the PhD

- Scientific-Cultural Master's Degree in Physics(II level) at the University of Ferrara on November 26, 2012 (30/30).
- Visiting PhD student at the "Akhiezer Institute for Theoretical Physics at the National Science Center" Kharkov Institute of Physics and Technology "- National Academy of Sciences of Ukraine, Kharkiv (Ukraine) in October-November 2013.
- Attended the "XI Seminar on Software for Nuclear, Subnuclear and Applied Physics", May 25-30 2014, Porto Conte Alghero (SS, Italy).
- Attended the "INFN School of Statistics", June 3-7 2013, Lloyd's Baia Hotel, Vietri sul Mare (SA), Italy.
- Attended the "Ferrara International School Niccolò Cabeo-on hadron structure and interactions ", May, 23-28 2011 IUSS, Via delle Scienze 41b, 44121 Ferrara (Italy).
- Participation to data takings in CERN (Geneva, Switzerland) for the CERN-UA9, INFN-COHERENT and ICE-RAD experiments.
- Participation to data takings in MAMI (Mainzer Mikrotron), Johannes Gutenberg University of Mainz (Germany), for the INFN-ICE-RAD and CHANEL experiments in collaboration with the X1 group of MAMI.
- Participation to a data taking in SLAC (Menlo Park, California (USA)) for the T523 experiment.
- Participation to data takings at LNL (INFN National Laboratories of Legnaro), Legnaro (Pd, Italy) for the INFN-COHERENT and ICE-RAD experiments.

Scientific divulgation

- Editorial board member of the Popular Science Website "INFN Scienza Per Tutti", <http://scienzaper tutti.inf.infn.it/>, created by researches of the INFN-National Laboratories of Frascati, Italy.
- Teacher of popular course of Physics for the Open University of Cento (Ferrara, Italy) in January-May 2016.
- Member of the project "Fisici Senza Frontiere", http://www.fe.infn.it/orientamento_fisica/fsf/Home.html, created by Post Doc and PhD students of the Department of Physics and Earth Science, Ferrara University, with the main purpose to promote science education through ludo-educational activities involving students of primary and secondary levels.
- Participation to the Open Days of the Scientific and Technological Centre, University of Ferrara, in 2010, 2012, 2013.

Public relation

- Representative PhD student in the Board of the Department of Physics and Earth Science of the Ferrara University in the academic years 2012, 2013, 2014.
- Representative student of Equal Opportunities Committee of the University of Ferrara in the academic year 2009/10.
- Class representative student during the High School (1997-2002) .

Awards

- Winner with Dr.Mazzolari and Dr. Bagli of the "Premio Sapio Ricerca 2016", 16/03/2016, awarded by the Organising Committee of the "Premio Sapio" at Camera dei Deputati, Sala della Regina presso Palazzo Montecitorio.
- Winner of the "Best PhD thesis in Physics of Ferrara Doctoral School – XXVII cicle" awarded by the IUSS – University of Ferrara in 2016.
- Mention "Nicolaus Copernicus" for innovative PhD thesis in science and technology relating to the discipline of Physics - 2015 - awarded by the Organising Committee of the Awards "Giulio Natta and Nicolaus Copernicus" for Scientific Research and Technological Innovation.
- Winner of the "Best Poster Award" at the International Conference "*Channeling 2014 - Charged and Neutral Particles Channeling Phenomena*" held in October 5-8 2014 in Capri, Italy.
- Winner of a scholarship financed by the University of Ferrara for period abroad as a visiting PhD student (spent in Kharkiv, Ukraine, in 2013).
- Awarded at the "Olympic Games of Mathematics" at the provincial competitions (1999, Modena, Italy).

- | Authors, Journals e Title | Impact Factor (2013) |
|--|----------------------|
| [J01] E. Bagli, L. Bandiera , P. Dalpiaz, V. Guidi, A. Mazzolari, D. Bolognini, S. Hasan, D. Lietti, M. Prest, E. Vallazza, G. Della Mea and D. De Salvador, JINST 7 (2012) P04002, "A topologically connected multistrip crystal for efficient steering of high-energy beam". IF(2013) 1.526 | |
| [J02] V. Guidi, L. Bandiera , V. Tikhomirov, Physical Review A 86 (2012) 042903, "Radiation generated by single and multiple volume reflection of ultrarelativistic electrons and positrons in bent crystals". IF(2013) 2.991 | |
| [J03] W. Scandale, R. Losito, E. Bagli, L. Bandiera , P. Dalpiaz, M. Fiorini, V. Guidi, A. Mazzolari, D. Vincenzi, G. Della Mea, E. Vallazza, A.G. Afonin, Yu.A. Chesnokov, V.A. Maisheev, I.A. Yazynin, A.D. Kovalenko, A.M. Taratin, A.S. Denisov, Yu.A. Gavrikov, Yu.M. Ivanov, L.P. Lapina, V.V. Skorobogatov, D. Bolognini, S. Hasan, M. Prest, Phys. Lett. B 719 (2013) 70, "Measurement of the dechanneling length for high-energy negative pions". IF(2013) 6.019 | |
| [J04] L. Bandiera , E. Bagli, A. Berra, D. Bolognini, P. Dalpiaz, G. Della Mea, D. De Salvador, V. Guidi, S. Hasan, D. Lietti, A. Mazzolari, M. Prest, V. Tikhomirov, E. Vallazza, Nucl. Instr. Meth. B 309 (2013) 135, "On the radiation accompanying volume reflection". IF(2013)1.186 | |
| [J05] E. Bagli, L. Bandiera , V. Guidi, A. Mazzolari, D. De Salvador, G. Maggioni, A. Berra, D. Lietti, M. Prest, E. Vallazza, N. V. Abrosimov, Phys. Rev. Lett. 110 (2013) 175502, "Coherent Effects of High-Energy Particles in a Graded Si1-xGex Crystal". IF(2013) 7.728 | |
| [J06] W. Scandale, G. Arduini, M. Butcher, F. Cerutti, S. Gilardoni, L. Lari, A. Lechner, R. Losito, A. Masi, A. Mereghetti, E. Metral, D. Mirarchi, S. Montesano, S. Redaelli, P. Schoofs, G. Smirnov, E. Bagli, L. Bandiera , S. Baricordi, P. Dalpiaz, V. Guidi, A. Mazzolari, D. Vincenzi, G. Claps, S. Dabagov, D. Hampai, F. Murtas, G. Cavoto, M. Garattini, F. Iacoangeli, L. Ludovici, R. Santacesaria, P. Valente, F. Galluccio, A.G. Afonin, M.K. Bulgakov, Yu.A. Chesnokov, V.A. Maisheev, I.A. Yazynin, A.D. Kovalenko, A.M. Taratin, V.V. Uzhinskiy, Yu.A. Gavrikov, Yu.M. Ivanov, L.P. Lapina, W. Ferguson, J. Fulcher, G. Hall, M. Pesaresi, M. Raymond, V. Previtali, Phys. Lett. B 726 (2013) 182, "Optimization of the crystal assisted collimation of the SPS beam". IF(2013) 6.019 | |
| [J07] D. De Salvador, G. Maggioni, S. Carturan, M. Bazzan, N. Argiolas, A. Carnera, M. Dalla Palma, G. Della Mea, E. Bagli, A. Mazzolari, L. Bandiera , V. Guidi, D. Lietti, A. Berra, G. Guffanti, M. Prest, E. Vallazza, J. App. Phys. 114 (2013) 154902, "Highly bent (110) Ge crystals for efficient steering of ultrarelativistic beams". IF(2013) 2.185 | |
| [J08] L. Bandiera , E. Bagli, V. Guidi, A. Mazzolari, A. Berra, D. Lietti, M. Prest, E. Vallazza, D. De Salvador, V. Tikhomirov, Phys. Rev. Lett. 111 (2013) 255502, "Broad and Intense Radiation Accompanying Multiple Volume Reflection of Ultrarelativistic Electrons in a Bent Crystal". IF(2013) 7.728 | |
| [J09] E. Bagli, L. Bandiera , V. Guidi, A. Mazzolari, D. De Salvador, A. Berra, D. Lietti, M. Prest, E. Vallazza, Eur. Phys. J. C 74 (2014) 2740, "Steering efficiency of a ultrarelativistic proton beam in a thin bent crystal". IF(2013) 5.436 | |
| [J10] A. Mazzolari, E. Bagli, L. Bandiera , V. Guidi, H. Backe, W. Lauth, A. Berra, D. Lietti, M. Prest, E. Vallazza, D. De Salvador, Phys. Rev. Lett. 112 (2014) 135503, "Steering of a Sub-GeV Electron Beam through Planar Channeling Enhanced by Rechanneling". IF(2013) 7.728 | |
| [J11] W. Scandale, G. Arduini, M. Butcher, F. Cerutti, S. Gilardoni, A. Lechner, R. Losito, A. Masi, E. Metral, D. Mirarchi, S. Montesano, S. Redaelli, G. Smirnov, L. Bandiera , S. Baricordi, P. Dalpiaz, V. Guidi, A. Mazzolari, D. Vincenzi, G. Claps, S. Dabagov, D. Hampai, F. Murtas, G. Cavoto, M. Garattini, F. Iacoangeli, L. Ludovici, R. Santacesaria, P. Valente, F. Galluccio, A.G. Afonin, Yu.A. Chesnokov, P.N. Chirkov, V.A. Maisheev, Yu.E. Sandomirskiy, I.A. Yazynin, A.D. Kovalenko, A.M. Taratin, Yu.A. Gavrikov, Yu.M. Ivanov, L.P. Lapina, W. Ferguson, J. Fulcher, G. Hall, M. Pesaresi, M. Raymond, Phys. Lett. B 733 (2014) 366, "Observation of focusing of 400 GeV/c proton beam with the help of bent crystals". IF(2013) 6.019 | |
| [J12] W. Scandale, G. Arduini, M. Butcher, F. Cerutti, S. Gilardoni, A. Lechner, R. Losito, A. Masi, E. Metral, D. Mirarchi, S. Montesano, S. Redaelli, G. Smirnov, E. Bagli, L. Bandiera , S. Baricordi, P. Dalpiaz, G. Germogli, V. Guidi, A. Mazzolari, D. Vincenzi, G. Claps, S. Dabagov, D. Hampai, F. Murtas, G. Cavoto, M. Garattini, F. Iacoangeli, L. Ludovici, R. Santacesaria, P. Valente, F. Galluccio, A.G. Afonin, Yu.A. Chesnokov, P.N. Chirkov, V.A. Maisheev, Yu.E. Sandomirskiy, I.A. Yazynin, A.D. Kovalenko, A.M. Taratin, Yu.A. Gavrikov, Yu.M. Ivanov, L.P. Lapina, W. Ferguson, J. Fulcher, G. Hall, M. Pesaresi, M. Raymond, Phys. Lett. B 734 (2014) 1, "Mirroring of 400 GeV/c protons by an ultra-thin straight crystal". IF(2013) 6.019 | |

- [J13] W. Scandale, G. Arduini, M. Butcher, F. Cerutti, S. Gilardoni, L. Lari, A. Lechner, R. Losito, A. Masi, A. Mereghetti, E. Metral, D. Mirarchi, S. Montesano, S. Redaelli, P. Schoofs, G. Smirnov, E. Bagli, **L. Bandiera**, S. Baricordi, P. Dalpiaz, V. Guidi, A. Mazzolari, D. Vincenzi, G. Claps, S. Dabagov, D. Hampai, F. Murtas, G. Cavoto, M. Garattini, F. Iacoangeli, L. Ludovici, R. Santacesaria, P. Valente, F. Galluccio, A.G. Afonin, Yu.A. Chesnokov, V.A. Maisheev, Yu.E. Sandomirskiy, A.A. Yanovich, I.A. Yazynin, A.D. Kovalenko, A.M. Taratin, Yu.A. Gavrikov, Yu.M. Ivanov, L.P. Lapina, W. Ferguson, J. Fulcher, G. Hall, M. Pesaresi, M. Raymond, V. Previtali, Nucl. Instr. Meth. B 338 (2014) 108, "Deflection of high energy protons by multiple volume reflections in a modified multi-strip silicon deflector". IF(2013)1.186
- [J14] E. Bagli, **L. Bandiera**, V. Bellucci, A. Berra, R. Camattari, D. De Salvador, G. Germogli, V. Guidi, L. Lanzoni, D. Lietti, A. Mazzolari, M. Prest, V. V. Tikhomirov, E. Vallazza, Eur. Phys. J. C 74 (2014) 3114, "Experimental evidence of planar channeling in a periodically bent crystal". IF(2013) 5.436
- [J15] U. Wienands, T. W. Markiewicz, J. Nelson, R. J. Noble, J. L. Turner, U. I. Uggerhøj, T. N. Wistisen, E. Bagli, **L. Bandiera**, G. Germogli, V. Guidi, A. Mazzolari, R. Holtzapple, and M. Miller, Phys. Rev. Lett. 114 (2015) 074801, "Observation of Deflection of a Beam of Multi-GeV Electrons by a Thin Crystal". IF(2013) 7.728
- [J16] G. Germogli, A. Mazzolari, **L. Bandiera**, E. Bagli, V. Guidi, Nucl. Instr. Meth. B 355 (2015) 81, "Manufacturing and characterization of bent silicon crystals for studies of coherent interactions with negatively charged particles beams". IF(2013)1.186
- [J17] **L. Bandiera**, E. Bagli, V. Guidi, V. Tikhomirov, Nucl. Instr. Meth. B 355 (2015) 44, "RADCHARM++: A C++ routine to compute the electromagnetic radiation generated by relativistic charged particles in crystals and complex structures". IF(2013)1.186
- [J18] D. Lietti, H. Backe, E. Bagli, **L. Bandiera**, A. Berra, S. Carturan, D. De Salvador, G. Germogli, V. Guidi, W. Lauth, A. Mazzolari, M. Prest, E. Vallazza, Rev. Sci. Instrum. 86 (2015) 045102, "The experimental setup of the Interaction in Crystals for Emission of RADIATION collaboration at Mainzer Mikrotron: Design, commissioning, and tests". IF(2013) 1.584
- [J19] W. Scandale, G. Arduini, M. Butcher, F. Cerutti, M. Garattini, S. Gilardoni, L. Lari, A. Lechner, R. Losito, A. Masi, A. Mereghetti, E. Metral, D. Mirarchi, S. Montesano, S. Redaelli, R. Rossi, P. Schoofs, G. Smirnov, E. Bagli, **L. Bandiera**, S. Baricordi, P. Dalpiaz, G. Germogli, V. Guidi, A. Mazzolari, D. Vincenzi, G. Claps, S. Dabagov, D. Hampai, F. Murtas, G. Cavoto, F. Iacoangeli, L. Ludovici, R. Santacesaria, P. Valente, F. Galluccio, A.G. Afonin, Yu. A. Chesnokov, V.A. Maisheev, Yu. E. Sandomirskiy, A.A. Yanovich, I.A. Yazynin, A.D. Kovalenko, A.M. Taratin, Yu. A. Gavrikov, Yu. M. Ivanov, L.P. Lapina, W. Ferguson, J. Fulcher, G. Hall, M. Pesaresi, M. Raymond, D. Bolognini, S. Hasan, M. Prest, E. Vallazza, Phys. Lett. B 743 (2015) 440, "Observation of nuclear dechanneling length reduction for high energy protons in a short bent crystal". IF(2013) 6.019.
- [J20] E. Bagli, V. Guidi, A. Mazzolari, **L. Bandiera**, G. Germogli, A. I. Sytov, D. De Salvador, A. Argiolas, M. Bazzan, A. Carnera, A. Berra, D. Bolognini, D. Lietti, M. Prest, and E. Vallazza, Phys. Rev. Lett. 115 (2015) 015503, "Orientational Coherent Effects of High-Energy Particles in a LiNbO₃ Crystal". IF(2013) 7.728.
- [J21] **L. Bandiera**, E. Bagli, G. Germogli, V. Guidi, A. Mazzolari, H. Backe, W. Lauth, A. Berra, D. Lietti, M. Prest, D. De Salvador, E. Vallazza, and V. Tikhomirov, Phys. Rev. Lett. 115 (2015) 025504, "Investigation of the Electromagnetic Radiation Emitted by Sub-GeV Electrons in a Bent Crystal". IF(2013) 7.728.
- [J22] W. Scandale, G. Arduini, M. Butcher, F. Cerutti, M. Garattini, S. Gilardoni, A. Lechner, R. Losito, A. Masi, A. Mereghetti, E. Metral, D. Mirarchi, S. Montesano, S. Redaelli, R. Rossi, P. Schoofs, G. Smirnov, E. Bagli, **L. Bandiera**, S. Baricordi, P. Dalpiaz, G. Germogli, V. Guidi, A. Mazzolari, D. Vincenzi, G. Claps, S. Dabagov, D. Hampai, F. Murtas, G. Cavoto, F. Iacoangeli, L. Ludovici, R. Santacesaria, P. Valente, F. Galluccio, A.G. Afonin, Yu. A. Chesnokov, A.A. Durum, V.A. Maisheev, Yu. E. Sandomirskiy, A.A. Yanovich, A.D. Kovalenko, A.M. Taratin, Yu. A. Gavrikov, Yu. M. Ivanov, L.P. Lapina, J. Fulcher, G. Hall, M. Pesaresi, M. Raymond, Phys. Lett. B 748 (2015) 451, "Observation of strong leakage reduction in crystal assisted collimation of the SPS beam". IF(2013) 6.019.
- [J23] **L. Bandiera**, A. Mazzolari, E. Bagli, G. Germogli, V. Guidi, A. Sytov, I. V. Kirillin, N. F. Shul'ga, A. Berra, D. Lietti, M. Prest, D. De Salvador and E. Vallazza, Eur. Phys. J. C 76 (2016) 80, "Relaxation of axially confined 400 GeV/c protons to planar channeling in a bent crystal". IF(2013) 7.728.
- [J24] A. T. Sytov, V. Guidi, V. V. Tikhomirov, E. Bagli, **L. Bandiera**, G. Germogli and A. Mazzolari, Eur. Phys. J. C 76 (2016) 77, "Planar channeling and quasichanneling oscillations in a bent crystal". IF(2013) 5.436

[J24] A. I. Sytov, V. Guidi, V. V. Tikhomirov, E. Bagli, **L. Bandiera**, G. Germogli and A. Mazzolari, Eur. Phys. J. C 76 (2016) 77, "Planar channeling and quasichanneling oscillations in a bent crystal". IF(2013) 5.436

[J25] W Scandale, G Arduini, M Butcher, F Cerutti, M Garattini, S Gilardoni, A Lechner, R Losito, A Masi, D Mirarchi, S Montesano, S Redaelli, R Rossi, P Schoofs, G Smirnov, E Bagli, **L. Bandiera**, G Germogli, V Guidi, A Mazzolari, S Dabagov, F Murtas, F Addesa, G Cavoto, F Iacoangeli, L Ludovici, R Santacesaria, P Valente, F Galluccio, AG Afonin, Yu A Chesnokov, AA Durum, VA Maishev, Yu E Sandomirskiy, AA Yanovich, AD Kovalenko, AM Taratin, AS Denisov, Yu A Gavrikov, Yu M Ivanov, LP Lapina, LG Malyarenko, VV Skorobogatov, T James, G Hall, M Pesaresi, M Raymond, Phys. Lett. B 758(2016)129, "Observation of channeling for 6500GeV/c protons in the crystal assisted collimation setup for LHC". IF(2013) 6.019.

Conference Proceedings (P):

[P01] **L. Bandiera**, E. Bagli, A. Berra, D. Bolognini, P. Dalpiaz, G. Della Mea, D. De Salvador, V. Guidi, S. Hasan, D. Lietti, A. Mazzolari, M. Prest, V. Tikhomirov, E. Vallazza, Charged and Neutral Particles Channeling Phenomena: Channeling 2012 – Proceedings, "On the Radiation Accompanying Volume Reflection".

[P02] **L. Bandiera**, A. Mazzolari, E. Bagli, A. Berra, D. Lietti, D. De Salvador, V. Guidi, M. Prest, V. Tikhomirov, E. Vallazza, J. Phys.: Conf. Ser. (2014) 517 012043, "Single and Multiple Volume Reflections of Ultra-Relativistic Electrons in a Bent Crystal as Tools for Intense Production of Electromagnetic Radiation".

[P03] **L. Bandiera**, E. Bagli, V. Guidi, V. Tikhomirov, to be published in Charged and Neutral Particles Channeling Phenomena: Channeling 2014 – Proceedings, "RADCHARM++: A C++ routine to compute the electromagnetic radiation generated by relativistic charged particles in crystals and complex structures".

[P04] **L. Bandiera**, E. Bagli, G. Germogli, V. Guidi, A. Mazzolari, H. Backe, W. Lauth, A. Berra, D. Lietti, M. Prest, D. De Salvador, E. Vallazza, and V. Tikhomirov, to be published in Charged and Neutral Particles Channeling Phenomena: Channeling 2014 – Proceedings, "Experimental investigation on radiation emitted by sub-GeV electrons in a bent crystal".

[P05] G. Germogli, A. Mazzolari, **L. Bandiera**, E. Bagli, V. Guidi, to be published in Charged and Neutral Particles Channeling Phenomena: Channeling 2014 – Proceedings, "Manufacturing and characterization of bent silicon crystals for studies of coherent interactions with negatively charged particles beams".

Contributions to International Conferences and Workshop presented by the LB (C):

[C01] *Design of crystals for investigation of radiation generated by coherent interaction in crystals.* Oral contribution to The CUTE (Crystalline Undulator: Theory and Experiments) Workshop (20-23 Maggio 2012) S. Pietroburgo (Russia).

[C02] *On the radiation accompanying volume reflection.* Oral Contribution to The 5th International Conference "Charged & Neutral Particles Channeling Phenomena - Channeling 2014" (Alghero, Italy) on September 23-28, 2012.

[C03] *Characterization of a crystalline undulator with 400 GeV/c protons.* Oral Contribution to The CUTE (Crystalline Undulator: Theory and Experiments) Workshop (October 2012) S. Pietroburgo (Russia).

[C04] *Analysis of mirror effect in an ultra-thin silicon membrane with 400 GeV/c protons.* Oral contribution at the UA9 collaboration Workshop 22-24 April 2013 CERN(Geneve).

[C05] *Study of coherent interactions between a sub-GeV electron beam and a thin bent silicon crystal.* Oral contribution at The RREPS Conference 23-28 September 2013 Sevan (Armenia).

[C06] *Test of a crystalline undulator with positrons at BTF.* Oral contribution at the First BTF users workshop (6-7 Maggio 2014), INFN-National Laboratories of Frascati.

- [C07] *Investigation on the radiation emitted by sub-GeV electrons in a bent crystal. Oral contribution at The 6th International Conference "Charged & Neutral Particles Channeling Phenomena - Channeling 2014" Capri, Italy) 5-10 October, 2014.*
- [C08] *RADCHARM++: a Software to Simulate Electromagnetic Radiation Generated by Relativistic Electrons and Positrons in Crystals and Complex Structures. Poster contribution at The 6th International Conference "Charged & Neutral Particles Channeling Phenomena - Channeling 2014" Capri, Italy) 5-10 October, 2014.*
- [C09] *Crystal channeling to extract a high-energy hadron beam from an accelerator, the CRYSBEAM project. Talk at Congresso Società Italiana di Fisica, Roma 2015.*
- [C10] *Coherent interactions in crystals as a tool for manipulation of ultrarelativistic electron and positron beams. Poster contribution at "The 2nd FCC week" (11-15 April, 2016, Rome, Italy).*

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