# CURRICULUM VITAE Dr. Andrea Zanzi



Firenze – August 29, 2015

FAMILY NAME: Zanzi FIRST NAME: Andrea

BIRTHPLACE: Ferrara (Italy)
DATE OF BIRTH: April 10, 1979

NATIONALITY: Italian

MARITAL STATUS: Married, one daughter

ADDRESS: Dipartimento di Fisica e Scienze della Terra,

University of Ferrara (Italy)

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#### **EDUCATION:**

**December 2003-March 2007:** PhD in Physics at Padova University (Supervisor: Prof. A. Masiero).

PhD thesis: Aspects of the Dark Energy problem in brane theories.

*Fall 2003 - Padova University*: I won the PhD competitive examination in Padova.

**Fall 2003** - Scuola Normale Superiore (Pisa): I have been declared eligible for the PhD in Physics (perfezionamento classe di Scienze) with the general score 8/10.

**July 2003**: I graduated in Physics *cum laude* at Ferrara University discussing a thesis entitled "Asteroseismology and extrasolar planets" (Supervisors: Prof. G. Fiorentini and Prof. S.Ortolani).

**September 1998 – July 2003**: I passed all the examinations of the degree in Physics at Ferrara University with the highest score (30/30).

### **RESEARCH POSITIONS:**

August 2014: I worked at the University of Ferrara.

January-June 2009: I worked at College de France (Paris).

Supervisor: Prof. G.Veneziano.

**November-December 2008:** I worked at the Physics institute in Padova. **October 2006 – September 2008:** I worked at the Physics Institute in Bonn (postdoctoral position). Supervisor: Prof. Hans-Peter Nilles.

### **TEACHING EXPERIENCE:**

Academic year 2015/16: I teach the exercises of classical physics (1<sup>st</sup> year of the degree in physics) and I am member of the board of the examiners. Academic year 2014/15: I had a position at the University of Ferrara to teach the exercises of analytical mechanics (2nd year of the degree in physics – this is a 2-semesters course) and of classical physics ("Fisica Generale 1", second semester of the first year of the degree in Physics). I was member of the board of the examiners for both courses.

**June-September 2014:** I was member of the board of the examiners for classical physics (Fisica Generale 1) at the University of Ferrara.

**29 Apr 2014 – 6 June 2014:** I taught the exercises of fluid mechanics and thermodynamics at the University of Ferrara (first year of the degree in Physics).

**17 Mar 2014 – 26 Mar 2014:** I taught mathematics at the high-school IPSSAR "O. Vergani" (Ferrara) as a substitute teacher.

**22 Oct 2013 – 20 Nov 2013:** I taught mathematics and physics at the highschool Liceo Classico "L. Ariosto" (Ferrara) as a substitute teacher.

**14 Jan 2013 – 12 Mar 2013:** I taught mathematics (as a substitute teacher) at the high-school IPSIA "Ercole I d'Este" Ferrara.

**3 Oct 2012 – 6 Dec 2012:** I taught physics at Istituto Istruzione Superiore "R. Brindisi", Lido degli Estensi (Ferrara) as a substitute teacher

**20 Feb 2012 - 06 Mar 2012:** I taught mathematics and physics at Liceo Scientifico in Codigoro (Ferrara) as a substitute teacher.

I gave private lectures on mathematics and physics (also in collaboration with educational centres and groups in Ferrara).

### **SUMMER SCHOOLS, WORKSHOPS AND SEMINARS:**

- Second European Summer School on Nuclear Astrophysics, Catania, 28/09/03-05/10/03;
- Eddington Workshop, O.A.R., Monteporzio Catone, 17-18 Oct 2003.
- ISAPP 2004 International School on Astroparticle Physics (European Doctorate School) Laboratori Nazionali del Gran Sasso, Assergi (L'Aquila), 28 June- 9 July 2004.
- XIII Seminario Nazionale di Fisica Teorica, Parma 30 Aug 2004 4 Sept 2004.
- 11th International Workshop on Neutrino Telescopes, Venezia, 22-25 Feb 2005.
- Ecole d'Eté de Physique Theorique (Les Houches) Session LXXXIV,
   Particle Physics Beyond the Standard Model, 1 Aug 2005 26 Aug
   2005. During this summer school I held a seminar.
- 9th International Workshop on Particle Physics and the early Universe COSMO 05, Bonn 28/08/05-01/09/05.
- ENTAPP Workshop on Dark Matter, SISSA, Trieste 19-20 Oct 2005.
- IDAPP's two days meeting, International Doctorate on Astroparticle Physics, Ferrara 12-13 May 2006.
- Summer Institute, New trends in Particle Physics and Cosmology, Sheffield 19-23 June 2006. During this summer school I held a seminar.
- Workshop on Astroparticle and Cosmology, Galilelo Galilei Institute for Theoretical Physics, Arcetri, Florence. 23 Oct – 8 Nov 2006.
   During this workshop I held a seminar.
- RTN Winter School on Strings, Supergravity and Gauge Theories. CERN, January 15- January 19, 2007.
- LHC-D: Beyond the Standard Model, Bonn 22-23 Feb 2007.
- XIX Workshop beyond the Standard Model. March 12-15 2007, Bad Honnef Germany.
- Kosmologietag. April 26-27 2007, Bielefeld. During this workshop I held a seminar.
- Planck 07. June 9-13 Warsaw, Poland. During this meeting I held a seminar.
- Pascos 07. July 2-7 London, UK.
- TRR33 meeting in Bad Honnef. October 1-5 2007, Bad Honnef, Germany.

- Dezember Symposium, DESY. December 4-5 2007, Hamburg, Germany. During this meeting I held a seminar.
- RTN Winter School, CERN, Switzerland 21-25 Jan 2008.
- XX Workshop. Beyond the Standard Model. March 10-13, Bad Honnef, Germany. During this workshop I held a seminar
- String Phenomenology and Dynamical Vacuum Selection. March 27-29, Liverpool, UK. During this conference I held a seminar.
- Planck 08. May 19-23, Barcelona, Spain. During this meeting I held a seminar.
- I have been invited as speaker for a seminar at SISSA (*International School for Advanced Studies*), Trieste, 29 Mar 2006.
- I have been invited as speaker for a seminar at Physikalisches Institut, Bonn, 13 June 2006.
- I held the following Tuesday-seminars in Bonn:
- a. 28 November 2006 Moduli Stabilization and the Cosmological Constant problem.
- b. 6 February 2007 Introduction to Chameleon Gravity
- c. 6 November 2007 Fluxes, Gaugino Condensates and Moduli Stabilization in Meta-stable Heterotic Vacua.
  - I held a seminar at SISSA (*International School for Advanced Studies*), Trieste, 30 Nov 2007.
  - 7-11 Jan 2008: I visited the Institute of Theoretical Physics in Heidelberg and I held a seminar.
  - I held a seminar in Bonn, 8 May 2008.
  - I held a seminar ("Pheno-Coffee") in Padova, 25 Nov 2008.
  - Workshop on supersymmetry, quantum gravity and gauge fields, Scuola Normale Superiore, Pisa. September 12-14, 2012.
  - I have been invited to give a seminar at Dipartimento di Fisica in Ferrara (Italy). I held the seminar on January 9, 2013.
  - I have been invited to give a seminar at Scuola Normale Superiore, Pisa (Italy). I held the seminar on February 26, 2013.
  - 18-21 Mar 2013. I attended the lectures at the workshop "Higher spins, strings and duality" at the Galileo Galilei Institute for Theoretical Physics in Arcetri, Florence.
  - 16-19 Apr 2013. I visited the Arnold Sommerfeld Center for

- Theoretical Physics in Munich and I held a seminar.
- 28 May 2013. I held a seminar at Centre de Physique Theorique (Ecole Polytechnique) in Paris.
- 19-22 Aug 2013. I visited CERN.
- Sep-Oct 2013. I attended various lectures and seminars at the workshop "Geometry of strings and fields" (Galileo Galilei Institute – Florence).
- 01-04 Oct 2013. I visited CERN.
- 19-20 Dec 2013. I attended the conference "A passion for particles", Scuola Normale Superiore, Pisa.
- September 2014. 7th International Workshop DICE2014 –
   Castiglioncello (Italy). "Spacetime, Matter, Quantum Mechanics". I
   have been invited to participate in the conference. During the
   conference I held a seminar in plenary session.
- 9-12 February 2015. I have visited the Institute of Theoretical physics in Cologne (Germany) where I held an (invited) seminar.
- 18-20 March 2015. I have visited LPTHE at University of Paris 6 (UPMC).

## **Scientific Papers:**

## 1) A. Zanzi

"Neutrino Dark Energy and Moduli Stabilization in a BPS Braneworld Scenario", Phys. Rev. D73 (2006) 124010.

# 2) V. Loewen, H.P. Nilles, A. Zanzi "Gaugino condensation with a doubly suppressed gravitino mass", Phys. Rev. D78 (2008) 046002.

### 3) A. Zanzi

"Chameleonic dilaton, nonequivalent frames, and the cosmological constant problem in quantum string theory". Phys. Rev. D82 (2010) 044006.

## 4) A. Zanzi

"Chameleonic dilaton and conformal transformations." arXiv. hep-th/1206.4463.

## 5) A. Zanzi

"Species, chameleonic strings and the concept of particle". arXiv.hep-th/1206.4794.

# 6) A. Zanzi

"Dilaton stabilization and composite dark matter in the string frame of heterotic-M-theory". arXiv.hep-th/1210.4615.

# 7) A. Zanzi

"Chameleonic equivalence postulate and wave function collapse" arXiv.quant-ph/1404.1942. Accepted for publication in Electronic Journal of Theoretical Physics.

8) A. Zanzi, B. Ricci
"Chameleon fields and solar physics"
Mod.Phys.Lett. A30 (2015) 1550053

# 9) A. Zanzi

"Chameleon fields, wave function collapse and quantum gravity" J.Phys.Conf.Ser. 626 (2015) 1, 012041

Il sottoscritto acconsente, ai sensi del D. Lgs. 30/06/2003 n.196, al trattamento dei propri dati personali e alla pubblicazione del presente curriculum vitae sul sito dell'Universita' di Ferrara.