

# Emiliano Imeroni's Curriculum Vitae

## Personal Information

<i>Name</i>	<b>Emiliano Imeroni</b>
<i>Place and date of birth</i>	Torino (Italy), April 21st, 1977
<i>Nationality</i>	Italian
<i>Civil status</i>	Married
<i>Office address</i>	Physique Mathématique des Interactions Fondamentales Université Libre de Bruxelles & International Solvay Institutes Campus Plaine, CP 231 1050 Bruxelles Belgium
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## Area of research

String theory. Holographic correspondence between quantum field theory and string/gravity theories.

## Post-doctoral Experience

- *October 2007 – today*: Post-doctoral researcher in theoretical physics at the Université Libre de Bruxelles & International Solvay Institutes, Brussels, Belgium
- *November 2005 – October 2007*: Post-doctoral researcher in theoretical physics at Swansea University, United Kingdom
- *November 2003 – October 2005*: Post-doctoral researcher in theoretical physics at the Spinoza Institute and Institute for Theoretical Physics, Utrecht University, The Netherlands

## Teaching

- *February – June 2010 (current activity)*: Teaching assistant of the Physics 101 (Electromagnetism) course, Université Libre de Bruxelles, Belgium
- *September 2007*: Lecturer of string theory and tutor at the 37th British Universities Summer School in Theoretical Elementary Particle Physics, York, United Kingdom

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- *September 2006*: Tutor at the 36th British Universities Summer School in Theoretical Elementary Particle Physics, Edinburgh, United Kingdom
- *January – June 2004*: Teaching assistant for the String theory course taught by prof. Gerard 't Hooft, Utrecht University, The Netherlands

### Other Experiences

- *November 2005 – July 2007*: Co-organizer of Seminar series in theoretical physics, Swansea University, United Kingdom
- *November 2003 – July 2005*: Organizer of Seminar series in theoretical physics, Utrecht University, The Netherlands
- Member of the scientific board of the EU RTN Network Winter School held in Barcelona (Spain), January 2004, and of the EU RTN Network Meeting held in Kolymbari (Greece), September 2004
- *October 2003 – September 2004*: Contact person of the post-doctoral researchers associated to the European Union RTN Network “The quantum structure of space-time and the geometric nature of fundamental interactions”

### Education

- *October 2003*: Ph.D. degree in Theoretical Physics. Supervisor: prof. Alberto Lerda. Title of the thesis: “Studies of the Gauge/String Theory Correspondence”
- *August 2001 – July 2002*: European Union Marie Curie Training Site Fellowship at Nordita, Copenhagen, Denmark. Supervisor: prof. Paolo Di Vecchia
- *November 2000 – October 2003*: Graduate studies in Theoretical Physics, University of Torino, Italy
- *October 2000*: “Laurea” degree in Physics, with full marks and honors (“110/110 e lode, menzione onorevole e dignità di stampa”). Thesis advisors: prof. Marialuisa Frau and prof. Stefano Sciuto. Title of the thesis: “D-brane interactions in String Theory”
- *October 1996 – October 2000*: University studies in Physics, University of Torino, Italy

### Talks

- *Holographic methods for condensed matter physics*, given at Montpellier University (France) and Antwerp University (Belgium), February 2010
- *A glimpse of holography*, pedagogical talk given at Antwerp University (Belgium), February 2010
- *Recent developments in the AdS/condensed matter correspondence*, given at the 5th Avogadro Meeting on Theoretical Physics, Trieste (Italy), December 2009
- *Strings, condensed matter, and charged black holes*, given at University of Parma (Italy), November 2009
- *Strings vs. condensed matter: an overview*, review talk given at the IAP meeting, Vrije Universiteit Brussel (Belgium), October 2009
- *Schrödinger black holes with extremal limits*, given at the 15th European Workshop on String Theory, Zürich (Switzerland), September 2009
- *Deformed gauge theories and their string duals*, given at Perimeter Institute, Waterloo (Canada), May 2009 and Université Libre de Bruxelles (Belgium), March 2009

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- *Deformed gauge theories and their gravity duals*, given at Swansea University (United Kingdom), June 2008 and University of Torino (Italy), May 2008
- *Giants in  $\beta$ -deformed theories*, given at IMSc, Chennai (India), January 2008, Queen Mary, University of London, May 2007 and Swansea University (United Kingdom), December 2006
- *A snapshot of the gauge/string duality*, given at the IAP meeting, Liège (Belgium), January 2008 and at the 36th and 37th BUSSTEPP Schools, York (United Kingdom), September 2007 and Edinburgh (United Kingdom), September 2006
- *A talk with (super)potential*, given at Swansea University (United Kingdom), February 2006
- *$c = 1$  from  $c < 1$* , given at Swansea University (United Kingdom), May 2005
- *A supergravity window on  $\mathcal{N} = 1$  gauge theories*, given at CERN, Geneva (Switzerland), October 2004
- *$\mathcal{N} = 1$  gauge theories from supergravity*, given at Utrecht University (The Netherlands), December 2003 and at the Simons Workshop in Mathematics and Physics, Stony Brook (USA), September 2003
- *Gauge superpotentials from supergravity*, given at the 2nd meeting of the P.R.I.N. “Teoria dei campi, superstringhe e gravità”, Anacapri (Italy), October 2003 and at the EU RTN Network Meeting, Copenhagen (Denmark), September 2003
- *Gauge theory description of compactified pp-waves*, given at Niels Bohr Institute and Nordita, Copenhagen (Denmark), December 2002, Amsterdam University (The Netherlands), November 2002 and University of Torino (Italy), October 2002
- *Gauge theories from wrapped branes*, given at Niels Bohr Institute and Nordita, Copenhagen (Denmark), May 2002 and at the 15th Nordic Network Meeting “Fields, Strings and Branes”, Karlstad (Sweden), May 2002

Slides of selected talks may be downloaded from <http://homepages.ulb.ac.be/~eimeroni/physics.html>.

## Conferences, Schools and Workshops Attended

- 1st, 2nd and 5th Avogadro Meetings on Theoretical Physics, Trieste and Alessandria (Italy), December 2009, 2006 and 2005
- IAP Meetings, Brussels (Belgium), October 2009 and Liège (Belgio), January 2008
- 15th European Workshop on String Theory, Zürich (Switzerland), September 2009
- “Strings 2009” Conference, Rome (Italy), June 2009
- CERN Winter School on Supergravity, Strings and Gauge Theories, CERN, Geneva (Switzerland), February 2009
- Solvay Workshop “Gauge theories, strings and geometry”, Brussels (Belgium), May 2007
- EU RTN Network Winter Schools: CERN, Geneva (Switzerland), January 2007 and January 2006; Trieste (Italy), February 2005; Barcelona (Spain), January 2004; Torino (Italy), January 2003; Utrecht (The Netherlands), January 2002; Paris (France), February 2001 and Torino (Italy), January 2000
- EU RTN Network Meetings: Napoli (Italy), October 2006; Corfu (Greece), September 2005 and September 2001; Kolymbari (Greece), September 2004; Copenhagen (Denmark), September 2003 and Leuven (Belgium), September 2002
- 1st-4th Simons Workshops in Mathematics and Physics, Stony Brook (USA), August 2003, August 2004, August 2005 and August 2006
- “String Theory 2005” Workshop, Amsterdam (The Netherlands), June 2005
- “Random Partitions and Calabi-Yau Crystals” Workshop, Amsterdam (The Netherlands), June 2005
- “B-fest” Meeting, Utrecht (The Netherlands), May 2005

- “Strings 2004” Conference, Paris (France), June 2004
- 2nd meeting of the P.R.I.N. “Teoria dei campi, superstringhe e gravità”, Anacapri (Italy), October 2003
- ICTP Spring School on String Theory, Trieste (Italy), April 2003
- 14th-16th Nordic Network Meetings “Fields, Strings and Branes”, Copenhagen (Denmark), November 2002; Karlstad (Sweden), May 2002 and Stockholm (Sweden), November 2001

### List of publications

1. E. Imeroni and A. Sinha,  
*Nonrelativistic metrics with extremal limits*,  
JHEP **0909**, 096 (2009), [arXiv:0907.1892 \[hep-th\]](#).
2. E. Imeroni,  
*On deformed gauge theories and their string/M-theory duals*,  
JHEP **0810**, 026 (2008), [arXiv:0808.1271 \[hep-th\]](#).
3. E. Imeroni and A. Naqvi,  
*Giants and loops in  $\beta$ -deformed theories*,  
JHEP **0703**, 034 (2007), [hep-th/0612032](#).
4. A. Armoni and E. Imeroni,  
*Predictions for orientifold field theories from type 0' string theory*,  
Physics Letters B **631**, 192 (2005), [hep-th/0508107](#).
5. S. Alexandrov and E. Imeroni,  
 *$c = 1$  from  $c < 1$ : Bulk and boundary correlators*,  
Nuclear Physics B **731**, 242 (2005), [hep-th/0504199](#).
6. E. Imeroni,  
 *$\mathcal{N} = 1$  gauge superpotentials from supergravity*,  
contribution to the proceedings of the EU RTN Meeting  
held in Copenhagen (Denmark), September 2003,  
Classical and Quantum Gravity **21**, S1425 (2004), [hep-th/0312137](#).
7. E. Imeroni,  
*The gauge/string correspondence towards realistic gauge theories*,  
review based on Ph.D. thesis, [hep-th/0312070](#).
8. E. Imeroni and A. Lerda,  
*Non-perturbative gauge superpotentials from supergravity*,  
JHEP **0312**, 051 (2003), [hep-th/0310157](#).
9. M. Bertolini, J. de Boer, T. Harmark, E. Imeroni and N. A. Obers,  
*Gauge theory description of compactified pp-waves*,  
JHEP **0301**, 016 (2003), [hep-th/0209201](#).
10. E. Imeroni,  
*On the  $\mathcal{N} = 1$   $\beta$ -function from the conifold*,  
Physics Letters B **541**, 189 (2002), [hep-th/0205216](#).
11. P. Di Vecchia, H. Enger, E. Imeroni and E. Lozano-Tellechea,  
*Gauge theories from wrapped and fractional branes*,  
Nuclear Physics B **631**, 95 (2002), [hep-th/0112126](#).