

# Chiara Cammarota

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**Place and Date of Birth:** Rome (RM), July 29th, 1983  
**Professional Address:** “Sapienza” University of Rome, Marconi building  
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## Education

04/2013-present Researcher, three-years position, at “Sapienza”, University of Rome - Italy  
12/2011-03/2013 Post-Doc ERC NPRG-Glass project at Jussieu - Paris VI  
11/2010-12/2011 Post-Doc CNRS at Institut de Physique Théorique - CEA - Saclay  
11/2009-11/2010 Post-Doc at the Institut de Physique Théorique - CEA - Saclay  
02/2010 PhD Thesis discussion, Physics, “Sapienza”, University of Rome, Italy.  
Thesis: “Equilibrium and Off-Equilibrium mechanisms for slow dynamics in glass-forming liquids”  
02/2009-03/2009 Visitor at INIFTA, La Plata, Argentina  
11/2006-10/2009 Ph.D. Student, Physics Department, “Sapienza”, University of Rome, Italy.  
Supervisor Andrea Cavagna, under the coordination of Enzo Marinari.  
11/2006 Admission to the Ph.D. course in Physics at “Sapienza”, University of Rome, Italy.  
10/2006 Laurea Specialistica *cum laude*, Physics, “Sapienza”, University of Rome, Italy.  
Thesis: “Tensione superficiale e nucleo critico nelle transizioni di fase del primo ordine.”  
11/2004 Laurea Triennale *cum laude*, Physics, “La Sapienza”, University of Rome, Italy.  
Thesis: “Effetti fisici dell’anarmonicità in sistemi classici e quantistici”.  
09/2001-10/2006 Undergraduate studies, “La Sapienza”, University of Rome, Italy.

## Computer skills

Working knowledge of Linux operating system (L<sup>A</sup>T<sub>E</sub>X, gnuplot); C/C++ programming.

## Teaching

2007 Assistant to Prof. E. Marinari for the undergraduate course of *Computational Physics* (30 hours)  
2008 Assistant to Prof. E. Marinari for the undergraduate course of *Computational Physics* (30 hours)  
2013 Professor of the undergraduate course of *Computational Physics* (60 hours)

## Publications

Total number of papers on international scientific journals: **12**

Total number of citations: **112**

h-index: **6**

Average Citations per Article: **9.33**

Last Update: **03/06/2014**

- G. Biroli, C. Cammarota, M. Tarzia, and G. Tarjus. “Random-field-like criticality in glass-forming liquids”, arXiv:1309.3194 (2013)
- C. Cammarota, G. Gradenigo, and G. Biroli. “Confinement as a Tool to Probe Amorphous Order”, Editor’s suggestion *Phys. Rev. Lett.* **111** 107801 (2013)
- C. Cammarota. “A general approach to systems with randomly pinned particles: Unfolding and clarifying the Random Pinning Glass Transition”, *Europhysics Letters* **101** 56001 (2013)
- C. Cammarota, and G. Biroli. “Random pinning glass transition: Hallmarks, mean-field theory and renormalization group analysis”, *J. Chem. Phys.* **138** 12A547 (2013)
- C. Cammarota, G. Biroli, M. Tarzia, and G. Tarjus. “Fragility of the mean-field scenario of structural glasses for disordered spin models in finite dimensions”, *Phys. Rev. B* **87** 064202 (2013)
- C. Cammarota, and G. Biroli. “Patch-repetition correlation length in glassy systems”, *Europhysics Letters* **98** 36005 (2012)
- C. Cammarota, and G. Biroli. “Aging and relaxation near Random Pinning Glass Transitions”, *Europhysics Letters* **98** 16011 (2012)
- C. Cammarota, and G. Biroli. “Ideal Glass Transitions by Random Pinning”, *PNAS* **109** 8850 (2012)
- C. Cammarota, G. Biroli, M. Tarzia, and G. Tarjus. “Renormalization Group Analysis of the Random First-Order Transition”, *Phys. Rev. Lett.* **106** 115705 (2011)
- C. Cammarota, A. Cavagna, I. Giardina, G. Gradenigo, T. S. Grigera, G. Parisi, and P. Verrocchio. “A phase-separation perspective on dynamic heterogeneities in glass-forming liquids”, Editor’s suggestion *Phys. Rev. Lett.* **105** 055703 (2010)
- C. Cammarota. “Equilibrium and off-equilibrium mechanisms for slow dynamics in glass-forming liquids”, PhD thesis, “Sapienza” Università di Roma (2009)
- C. Cammarota, A. Cavagna, G. Gradenigo, T. S. Grigera, and P. Verrocchio. “Numerical determination of the exponents controlling the relationship between time, length and temperature in glass-forming liquids”, *J. Chem. Phys.* **131** 194901 (2009)
- C. Cammarota, A. Cavagna, G. Gradenigo, T. S. Grigera, and P. Verrocchio. “Surface tension fluctuations and a new spinodal point in glass-forming liquids”, *J. Stat. Mech.* (2009) L12002
- C. Cammarota, and A. Cavagna. “A novel method for evaluating the critical nucleus and the surface tension in systems with first order phase transition”, *J. Chem. Phys.* **127** 214703 (2007)

## Forthcoming Papers

- C. Cammarota, and E. Marinari. “On the universality of the arcsine law for aging in trap models”, in preparation
- C. Cammarota, and B. Seoane, “Pinned replicated liquids, phase diagram and quantitative predictions in the HNC approximation”, in preparation
- C. Cammarota, and G. Biroli, “Growing correlation lengths in glasses: A unifying perspective on the probes of amorphous order”, in preparation

## Talks

- 07/2013 “A Thermodynamic Perspective on Glass Forming Liquids’ Dynamics”, invited talk to 7th IDMRCS July 21-26 2013, Barcelona, Spain.
- 06/2013 “A Thermodynamic Perspective on Glass Forming Liquids’ Dynamics”, contributed talk to Workshop CECAM 2013 June 26-28 2013, ETH Zürich, Swiss.
- 03/2013 “Glass Transitions by Random Pinning”, contributed talk to Italian-Israeli meeting March 2-6 2013, Weizmann Institute Rehovot/Ein Gedi Oasis, Israeli.
- 03/2013 “Glass Transitions by Random Pinning”, invited talk LPTMC Paris VI, France.
- 03/2013 “Glass Transitions by Random Pinning”, invited talk ENS, Lyon, France.
- 02/2013 “Glass Transitions by Random Pinning”, invited talk LPS/ENS, Paris, France.
- 01/2013 two lectures on “Glass Transitions by Random pinning”, *Institut de Physique Théorique* CEA-Saclay, Paris, France.
- 01/2013 “Glass Transitions by Random Pinning”, “*Sapienza*”, University of Rome, Italy.
- 09/2012 “A non-perturbative, real-space, Renormalization Group approach to the Glass Transition”, Contributed talk to ERG2012 September 3-7 2012, Aussois, France.
- 03/2012 “Exploration of glass transition by Random Pinning”, LPTMS/ParisSUD, Paris, France.
- 03/2012 “Exploration of glass transition by Random Pinning”, LPT/ENS, Paris, France.
- 12/2011 “Ideal Glass Transitions by Random Pinning”, contributed talk to Unifying concepts in glass physics V, IHP Paris, France.
- 12/2011 “Relaxation and Aging near random pinning glass transitions”, invited talk to French-Japanese meeting on Jamming and Glasses, IHP Paris, France.
- 03/2011 “A Phase separation perspective on dynamical heterogeneities in glass-forming liquids”, contributed talk to Viscous liquids meeting, “*Sapienza*” University of Roma, Italy.
- 03/2011 “Renormalization group analysis of random first order transition ”, contributed talk to March Meeting, Dallas, Texas.

- 12/2010 “First steps towards a renormalization group analysis of random first order transition”, VIM group invited talk, “Sapienza” University of Rome, Italy.
- 10/2010 “Renormalization group analysis of random first order transition”, “Meeting DynHet: Open questions on glasses and glassforming systems” invited talk, IHP Paris, France.
- 03/2010 “Surface tension between amorphous structures in glass-forming liquids: A static and dynamic perspective” invited talk, IPhT/CEA Saclay, France.
- 02/2010 “Equilibrium and off-equilibrium mechanisms for slow dynamics in glass-forming liquids”, PhD thesis final discussion, “Sapienza” University of Rome, Italy.
- 01/2010 “Surface tension between amorphous structures in glass-forming liquids”, “School on Glass Formers and Glasses” invited talk, Bangalore, India.
- 05/2009 “Surface tension fluctuations and a new spinodal point in glass-forming liquids” , “Meeting DynHet” invited talk, Université UM2 Montpellier, France.
- 06/2008 “Cooperative static length and amorphous surface tension in glass forming liquids” invited talk, *Institut de Physique Théorique* CEA-Saclay, Paris, France.
- 03/2008 “On the search of a diverging cooperative length in glass-forming liquids”, “11th International Workshop on Disordered Systems”, Andalo (Trento), Italy.
- 12/2006 “On the search of a diverging cooperative length in glass-forming liquids” group seminar, “*Sapienza*”, University of Rome, Italy.

## Posters

- 03/2011 C. Cammarota, A. Cavagna, I. Giardina, G.Gradenigo, T. S. Grigera, G. Parisi, and P. Verrocchio, “A phase separation perspective in dynamical heterogeneities in glass-forming liquids”, March Meeting, Dallas, Texas.
- 08/2009 C. Cammarota, A. Cavagna, I. Giardina, G.Gradenigo, T. S. Grigera, G. Parisi, and P. Verrocchio, “On the thermodynamic origin of dynamical heterogeneities”, “IDMRCS: 6th International Discussion Meeting on Relaxations in Complex Systems”, Roma, Italy.

## International Schools, Workshops, and Conferences

### As organizer

- “The Beg Rohu Summer School”, French National Sailing School, Saint Pierre Quiberon, Brittany, France, June 2014
- “Rejuvenating Concepts in Glass Physics V”, IHP Paris, France, March 30, 2012

### As participant

- “IDMRCS: 7th International Discussion Meeting on Relaxations in Complex Systems”, Barcelona, Spain, July 21-26, 2013
- Workshop CECAM 2013 “From cooperativity in supercooled liquids to plasticity of amorphous solids”, ETH Zürich, Swiss, June 26-28, 2013
- “The Beg Rohu Summer School: Disordered Systems”, French National Sailing School, Saint Pierre Quiberon, Brittany, France, June 3-15, 2013
- Italian-Israeli meeting Weitzmann Institute Rehovot/Ein Gedi Oasis, Israeli, March 2-6, 2013
- “ERG2012: 6th International Conference on the Exact Renormalization Group”, Centre Paul Langevin (CNRS), Aussois, France, September 3-7, 2012
- “244th ACS National Meeting & Exposition”, Pennsylvania Convention Center, Philadelphia, Pennsylvania, August 19-23, 2012
- “The Beg Rohu Summer School: Glass and Jamming Transitions”, French National Sailing School, Saint Pierre Quiberon, Brittany, France, May 28-June 9, 2012
- “Unifying Concepts in Glass Physics V”, IHP Paris, France, December 12-16, 2011
- “French-Japanese meeting on Jamming and Glasses”, IHP Paris, France, December 7-10, 2011
- “The Beg Rohu Summer School: Statistical Physics and Complex Systems”, French National Sailing School, Saint Pierre Quiberon, Brittany, France, July 19-31, 2011
- “Workshop on dynamics in viscous liquids III”, Accademia dei Lincei, Rome, Italy, March 30-April 2, 2011
- “March Meeting”, Dallas, Texas, March 21-25, 2011
- “Meeting DynHet: Open questions on glasses and glassforming systems”, IHP Paris, France, October 6-8, 2010
- “The Beg Rohu Summer School: Concepts and Methods of Statistical Mechanics”, French National Sailing School, Saint Pierre Quiberon, Brittany, France, 23 August - 4 September 2010
- “Glass2010: School on Glass Formers and Glasses”, “International Centre for Materials Science, JN-CASR”, Bangalore, India, January 4-20, 2010

- “IDMRCS: 6th International Discussion Meeting on Relaxations in Complex Systems”, “Sapienza” University of Rome, Italy, August 30-September 5, 2009
- “Meeting DynHet” Université UM2 Montpellier, France, May 14-15, 2009
- “Wandering with Curiosity in Complex Landscapes”, “Sapienza” University of Rome and Accademia dei Lincei, Italy, September 8-10, 2008
- “The Beg Rohu Summer School: Manifolds in random media, random matrices and extreme value statistics”, French National Sailing School, Saint Pierre Quiberon, Brittany, France, June 16-28, 2008
- “11th International Workshop on Disordered Systems”, Andalo (Trento), Italy, March 17-20, 2008
- “Summer School in Complexity Science”, Wye College, Kent, United Kingdom, July 8-17, 2007