

UNIVERSITÀ DEGLI STUDI DI MILANO

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Gabriele Sicuro

CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	SICURO
NOME	GABRIELE
DATA DI NASCITA	[10/04/1987]

Research experience

- **1 February 2015 - 31 December 2016:** Postdoctoral researcher at Centro Brasileiro de Pesquisas Físicas, Brazil (Project: Foundation of complexity, funded by the John Templeton Foundation. Principal investigator: Constantino Tsallis).
- **1 January 2017 - 31 December 2019:** Postdoctoral researcher at Sapienza University of Rome, Italy (Project: Simons Collaboration on Cracking the Glass Problem. Principal investigator: Giorgio Parisi).

Education

- **2006:** Maturità Scientifica, Liceo Scientifico "Giulio Cesare Vanini".
- **2009:** Laurea Triennale in Fisica, Università del Salento (110/110 cum laude).
- **2011:** Laurea Magistrale in Fisica, Università del Salento (110/110 cum laude). Supervisor: Piergiulio Tempesta (Universidad Complutense de Madrid) and Rosario Antonio Leo (Università del Salento). Thesis: *Simmetrie di equazioni di evoluzione alle derivate frazionarie*.
- **15/01/2015:** Dottorato in Fisica, Università di Pisa. Supervisor: Sergio Caracciolo (University of Milan). Thesis: *The Euclidean Matching Problem*.

International school attended

- **2012** International School on Complex Systems, ISAS-SISSA, Trieste (Italy).
- **2013** Period of training within the PhD course in Statistical Physics, ISAS-SISSA, Trieste.
- **2013** Summer school on Disordered System organized by the CEA of Saclay, Beg Rohu Summer School, St Pierre Quiberon (France). 3 - 15 June 2013.
- **2014** Statistical Field Theories Lectures, GGI, Florence (Italy). 3 - 14 February 2014.
- **2018** Statistical physics and machine learning back together, Institut d'études scientifiques de Cargèse, Cargèse (France), poster presented. 20 - 31 August 2018.

Teaching experience

- **2013-2014** Assistant lecturer, University of Pisa ("Struttura della Materia").
- **2017** Support teaching, Sapienza University of Rome ("Laboratorio di Fisica Computazionale").

Thesis supervisor

- **2018** Gianmarco Perrupato, master thesis at Sapienza University of Rome, "The matching problem on the Bethe lattice". Co-supervisor. Supervisor: Giorgio Parisi.

- **2016** Matteo D'Achille, master thesis at University of Milan, Milan, "On Two Assignment Problems: Random Assignment and Euclidean Bipartite Matching". Co-supervisor. Supervisor: Sergio Caracciolo.

Thesis committee

- **2015** Gustavo T. Pfeiffer, COPPE/UFRJ, Rio de Janeiro. Member of the committee for the assignment of the degree of Master of Science.

Invited talks

- **2018** Random matching problems, ENS, Paris (France). 7 June 2018.
- **2018** Random matching problems, King's college, London (UK). 23 May 2018.

Conference organized

- **2018** Beyond Mean Field Theory: Renormalisation group and non perturbative approaches to disordered and glassy systems, Sapienza University of Rome, Rome (Italy). 3-5 January 2018.
- **2018** Disordered serendipity: a glassy path to discovery, Sapienza University of Rome, Rome (Italy), poster presented. 19-22 September 2018.

Conferences and workshops attended

- 23rd Rencontres Claude Itzykson: Statistical Physics of Disordered and Complex Systems, Saclay (France). 4 June-6 June 2018.
- The Statistical Physics Cornucopia, Paris (France). 6 September-8 September 2017.
- Dynamics of glass-forming liquids, Carlsberg Academy, Copenhagen (Denmark). 5 April-7 April 2017.
- Simons Collaboration on Cracking the Glass Problem First Annual Meeting, New York City, poster presented. 9 March-10 March 2017.
- Conference on Entanglement and Non-Equilibrium Physics of Pure and Disordered Systems, ICTP, Trieste (Italy). 25 July-27 July 2016.
- International conference on Statistical Physics - STATPHYS26, IUPAP, Lyon (France), poster presented. 18 July-22 July 2016.
- 1st International Colloquium on Group Theoretical Methods in Physics, Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro (Brazil), talk and poster presented. 19 June -25 June 2016.
- International workshop on foundations of complexity, Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro (Brazil), talk presented. 19 October-24 October 2015.
- New Trends in Statistical Mechanical Foundations of Complexity, Ettore Majorana Centre for Scientific Culture, Erice (Italy), talk and poster presented. 27 July-2 August 2015.
- Physics and Mathematics of Nonlinear Phenomena - PMNP2013, University of Salento, Gallipoli (Italy), poster presented. 22-29 June 2013.
- 38th Conference of the Middle European Cooperation in Statistical Physics - MECO38, ICTP, Trieste. 25-28 March 2013.

Languages

- Italian *Mother tongue*
- English *Independent user*
- Portuguese *Basic user*

Computer skills

- Word processing: LATEX, WYSIWYG editors
- Programming: C/C++, Python
- Symbolic computation: Wolfram Mathematica
- OS: Unix, Microsoft Windows
- Visualization: Gnuplot, Pgfplots

Referee for Annalen der Physik, Physica A, Physical Review Letters, Physical Review E, The European Physical Journal Plus, Theoretical and Mathematical Physics.

Publications

1. R.A. Leo, G. Sicuro and P. Tempesta, A theorem on the existence of symmetries of fractional PDEs, *Comptes rendus mathématique* 354(3), p. 219-222 (2014).
2. S. Caracciolo, C. Lucibello, G. Parisi and G. Sicuro, Scaling hypothesis for the Euclidean bipartite matching problem, *Physical Review E* 90(1), 012118 (2014).
3. S. Caracciolo and G. Sicuro, One-dimensional Euclidean matching problem: Exact solutions, correlation functions, and universality, *Physical Review E* 90(4), 042112 (2014).
4. S. Caracciolo and G. Sicuro, Scaling hypothesis for the Euclidean bipartite matching problem. II. Correlation functions, *Physical Review E* 91(6), 062125 (2015).
5. G. Sicuro, P. Tempesta, A. Rodríguez, C. Tsallis, On the robustness of the q-Gaussian family, *Annals of Physics*, 363, p. 316-336 (2015).
6. S. Caracciolo and G. Sicuro, Quadratic stochastic Euclidean bipartite matching problem, *Physical Review Letters* 115, 230601 (2015).
7. G. Sicuro and P. Tempesta, Groups, Information Theory and Einstein's Likelihood Principle, *Physical Review E (Rapid Communication)* 93(4), 040101(R) (2016).
8. G. Sicuro, D. Bagchi and C. Tsallis, On the connection between linear combination of entropies and linear combination of extremizing distributions, *Physics Letters A* 380, 2025-2030 (2016).
9. G. Sicuro, P. Rapčan and C. Tsallis, Nonlinear inhomogeneous Fokker-Planck equations: entropy and free-energy time evolution, *Physical Review E* 94(6), 062117 (2016).
10. C. Lucibello, G. Parisi and G. Sicuro, One-loop diagrams in the Random Euclidean Matching Problem, *Physical Review E* 95(1), 012302 (2017).
11. R.A. Leo, P. Tempesta and G. Sicuro, A foundational approach to the Lie theory for fractional order partial differential equations, *Fractional Calculus and Applied Analysis*, 20(1), 212-231 (2017).
12. G. Sicuro and C. Tsallis, q-Generalized representation of the d-dimensional Dirac delta and q-Fourier transform, *Physics Letters A*, 381(32), 2583-2587 (2017).
13. S. Caracciolo, M.P. D'Achille, E. Malatesta and G. Sicuro, Finite size corrections in the random assignment problem, *Physical Review E* 95, 052129 (2017).
14. S. Caracciolo, M.P. D'Achille and G. Sicuro, Random Euclidean matching problems in one dimension, *Physical Review E* 96, 042102 (2017).
15. C. Lucibello, E. Malatesta, G. Parisi and G. Sicuro, The Random Fractional Matching Problem, *Journal of Statistical Mechanics* 053301 (2018).
16. F.P.C. Benetti, G. Parisi, F. Pietracaprina, G. Sicuro, Mean-field model for the density of states of jammed soft spheres, *Physical Review E* 97, 062157 (2018).
17. S. Caracciolo, M.P. D'Achille and G. Sicuro, Anomalous scaling of the optimal cost in the one-dimensional random assignment problem, *Journal of Statistical Physics* (2018).

Data

21 febbraio 2019

Luogo

Roma

