

Curriculum vitae, Francesco Zamponi

Date and place of birth Rome (Italy), February 23, 1979
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Education and Positions Held

Positions:

09/2023 - present Professore associato, Dipartimento di Fisica, Sapienza Università di Roma
10/2018 - 08/2023 *Directeur de Recherche (DR2)*, CNRS, LPENS, *Ecole Normale Supérieure*, Paris
10/2018 - 08/2021 *Professeur associé*, Physics Department, *Ecole Normale Supérieure*, Paris
09/2015 - 09/2018 *Maître de Conférences associé*, Physics Department, *Ecole Normale Supérieure*, Paris
03/2012 - 09/2018 *Chargé de Recherche (CR1)*, CNRS, LPT, *Ecole Normale Supérieure*, Paris
03/2008 - 02/2012 *Chargé de Recherche (CR2)*, CNRS, LPT, *Ecole Normale Supérieure*, Paris
10/2007 - 02/2008 EU Marie Curie Fellowship, LPT, *Ecole Normale Supérieure*, Paris
10/2006 - 10/2007 Post Doc, SPhT Saclay, Paris
10/2005 - 10/2006 Post Doc, LPT, *Ecole Normale Supérieure*, Paris
11/2002 - 10/2005 PhD student, Physics Department, University of Rome *La Sapienza*;
Supervisors: Prof. Giancarlo Ruocco and Prof. Giorgio Parisi
01/2002 - 10/2002 INFM fellowship, Rome *La Sapienza*
09/1997 - 12/2001 Undergraduate studies, University of Rome *La Sapienza*

Qualifications:

2023 Abilitazione Scientifica Nazionale (fascia I), settore 02/D1 (scad.11/1/2033)
2013 Abilitazione Scientifica Nazionale (fascia I), settore 02/A2 (scad.14/4/2030)
2013 Abilitazione Scientifica Nazionale (fascia I), settore 02/B2 (scad.11/5/2030)
30/11/2012 *Habilitation à diriger des recherches*, *Ecole Normale Supérieure*, Paris
13/01/2006 PhD in Physics, Università di Roma *La Sapienza*
13/12/2001 *Laurea in Fisica* (cum laude), Università di Roma *La Sapienza*

Awards, grants, fellowships, long-term visiting positions

2002 INFM-*La Sapienza* prize for an experimental *Laurea* thesis discussed in the year 2001.
2007 “Giorgio Gamberini” award of “Scuola Normale Superiore”, Pisa, for a PhD Thesis
in theoretical physics discussed after January 2005.
2009 Visiting fellow, Princeton Center for Theoretical Science (PCTS), Princeton, NJ (09-12/2009)
2009 BQR grant of ENS: *Fluids and solids at low temperature*
2010 MIT-France Seed Fund/MISTI Global Seed Fund grant: *Numerical simulations and quantum algorithms*
2011 PIR grant of ENS: *Optimization in complex systems*
2013 Appointment as a regular visiting fellow, Duke University, Durham, NC
2014 Grant of the university PSL* for the project *Jamming: Theory and Experiment* with O.Dauchot
2016 Member of the Simons collaboration *Cracking the glass problem* ([website](#))
2016 ERC Consolidator grant *GlassUniversality*

Scientific committees and other responsibilities

2010-14	Member of the scientific committee of the GDR Phenix-CNRS
2012-16	Elected member of the <i>Comité national de la Section 02</i> of CNRS
2013	Member of the AERES visiting committee of the LPT-Orsay
2014	Member of the selection committee for a <i>Maître de Conférences</i> position at LPT-Orsay
2015-16	Elected member of the <i>Commission interdisciplinaire 51</i> of CNRS
2019-21	Elected as head of the <i>Statistical physics</i> group of LPENS, Paris

Research

Research interests see <http://www.phys.ens.fr/~zamponi/pagine/research.html>

Publications see <http://www.phys.ens.fr/~zamponi/pagine/pubblicazioni.html>

Talks see <http://www.phys.ens.fr/~zamponi/pagine/talks.html>

Software see <http://www.phys.ens.fr/~zamponi/pagine/software.html>

Organization of scientific events see <http://www.phys.ens.fr/~zamponi/pagine/events.html>

Referee for: European Journal of Physics B, Europhysics Letters, Journal of Chemical Physics, Journal of Physics: Condensed Matter, Journal of Statistical Mechanics: Theory and Experiment (JSTAT), Journal of Statistical Physics, Nature, Nature Physics, Nature Communications, Journal of Alloys and Compounds, Powder Technology, Physica A, Physical Review E, Physical Review Letters, Molecular Physics, Soft Matter; see [ORCID](#).

Short-term visits – Year[number of days]

Duke University	2013[8]
Graduate center, CUNY	2014[3]
MIT Boston	2011[8], 2010[11]
Princeton University	2009[107]
Porto Alegre University	2011[11], 2010[11]
Rome “Sapienza”	2014[24], 2013[15], 2012[17], 2011[30], 2011[7]
SISSA Trieste	2010[6], 2010[12], 2009[18], 2008[16]
Weizmann Institute	2013[5]

Teaching

Courses (AY = Academic Year)

- *Metodi matematici della fisica* and *Metodi e modelli matematici della fisica*
Undergraduate courses of the Department of Physics, University of Rome *La Sapienza*
AY2003-04, 2×20 hours, assistant to A. Degasperis
Lecture notes, with exercises, published on the WWW site of the Department
- *Fisica dei liquidi*
Undergraduate course of the Department of Physics, University of Rome *La Sapienza*
AY2004-05 and AY2006-07, 5 hours, assistant to P. Tartaglia
The lecture notes can be downloaded from my web page
- *Mécanique statistique (preceptorat)*
Undergraduate course (L3) of the ESPCI, Paris
AY2008-09 → AY2011-12, 16 hours, assistant to J.-F. Joanny
- *Spin glasses*
 - ★ AY2007-08 → AY2009-10, 20 hours, PhD in Statistical Mechanics, SISSA, Trieste
 - ★ AY2010-11 → AY2013-14, 20 hours, PhD in Physics, Rome *La Sapienza*
 - ★ 2010, 3 hours, Winter School “Understanding and exploiting complexity at the nanoscale”,
Université libre de Bruxelles, Belgium
 - ★ 2011, 3 hours, University of Porto Alegre, BrazilThe lecture notes can be downloaded from my web page or on [arXiv:1008.4844](https://arxiv.org/abs/1008.4844)
- *Introduction à la Physique Numérique*
AY2011-12 → AY2015-16, 12 hours, with V. Croquette, course L3 of the ENS, Paris
- *Machine learning*, a course at the private company “CFM”, Paris 2017
Together with F. Krzakala and A. Manoel, 6 hours.
- *Mathématiques pour physiciens*
AY2015-16→2018-19, 38 hours, with M. Petrini, course L3 of the ENS, Paris
- *Information, inference, networks: from statistical physics to big biological data*
AY2016-17→2020-21, 20 hours, with R. Monasson and S. Cocco, ICFP master (M2), ENS Paris
- *Statistical Physics 2: Disordered Systems and Interdisciplinary Applications*
AY2020-21→AY2022-23, 20 hours, with G. Schehr, ICFP master (M2), ENS Paris
- *Meccanica analitica e relativistica*
Undergraduate course of the Department of Physics, *Sapienza* University of Rome
AY2023-24→ present, 60 hours
- *Modelli matematici per la fisica II*
Undergraduate course of the Department of Mathematics, *Sapienza* University of Rome
AY2023-24→ present, 56 hours

Undergraduate students

Year	Student	Stage	Institute	Co-supervisor
2004	Alessio Andronico	Laurea	Sapienza Rome	G. Ruocco
2005	Francesco Caltagirone	Dissertazione	Sapienza Rome	G. Ruocco
2008	Francesco Caltagirone	Laurea	Sapienza Rome	G. Parisi
2008	Ousmane Kodio	L3	Magistère de Physique d'Orsay	—
2009	Indaco Biazzo	Laurea	Sapienza Rome	G. Parisi
2009	Hugo Jacquin	M2	Master “Systèmes Complexes”	—
2010	Emmanuelle Kapulumba	L3	Université Paris 7	—
2011	Nicolas Allegra	M2	Master “Systèmes Complexes”	A. Walczak
2011	Antonie Fermé	L3	ENS Paris	T. Bodineau
2011	Vishal Agarwal	Internship	IIT Guwahati, India	—
2013	Giulia Carra	M2	ENS Paris	P. Charbonneau
2014	Giulia Cencetti	M2	ENS Paris	—
2014	Marcus Cordi	M2	KTH Stockholm	J.-P. Bouchaud
2015	Matthieu Mangeat	M2	ENS Paris	—
2015	Giancarlo Croce	M1	ENS Paris	S. Cocco
2015	Alexis Poncet	M1	ENS Paris	E. Corwin
2017	Dhruv Sharma	M2	ENS Paris	J.-P. Bouchaud
2017	Steffen Arnold	Internship	ENS Paris	—
2017	Guillaume Nevo	M2	ENS Paris	J.-P. Bouchaud
2020	Jeanne Trinquier	M2	Université de Paris	M. Weigt
2020	Matteo Bisardi	M2	Université de Paris	M. Weigt
2023	Leonardo Di Bari	M2	Sorbonne Université	M. Weigt
2024	Guglielmo Mennella	M2	Sapienza University	P. Charbonneau
2024	Gabriele Farné	M2	Sapienza University	—
2024	Shoichi Yip	M2	Sapienza University	C. Nizak, M. Weigt
2024	Ottavia Schulte	M2	Sapienza University	—

PhD students

Years	Student	Institute	Co-supervisor	Currently
2009-11	Laura Foini	SISSA Trieste	A. Gambassi	Permanent, CNRS - IPhT Paris
2010-13	Victor Bapst	ENS Paris	G. Semerjian	Google DeepMind, London
2011-12	Laetitia Papaxanthos	ENS Paris	J.-P. Bouchaud	(PhD at ENS not completed)
2012-15	Corrado Rainone	Sapienza Rome	G. Parisi	Qualcomm, Amsterdam
2013-16	Thibaud Maimbourg	ENS Paris	J. Kurchan	Postdoc, LPTMS Paris
2016-19	Camille Scalliet	Univ. Montpellier	L. Berthier	Permanent, CNRS - LPENS Paris
2017-20	Dhruv Sharma	ENS Paris	J.-P. Bouchaud	Talagent Financial, Boulder, CO
2020-23	Jeanne Trinquier	Sorbonne Université	M. Weigt	Postdoc, Institut de la vision, Paris
2020-23	Matteo Bisardi	ENS Paris	M. Weigt	Postdoc, Univ. of British Columbia
2020-23	Enrico Ventura	Sapienza Rome	G. Ruocco	Postdoc, Bocconi University, Milan
2023-26	Lorenzo Rosset	ENS Paris	M. Weigt	
2023-26	Alya Zeinaty	Sorbonne Université	M. Weigt	
2023-26	Luca del Bono	Sapienza University	F. Ricci-Tersenghi	

Post-docs

Years	Post-doc	Funding	Currently
2012-14	Yuliang Jin	PSL grant	Permanent, ITP-CAS, Shanghai
2012-14	Stanislao Gualdi	Crisis Project	Capital Fund Management, Paris
2015-18	Beatriz Seoane Bartolomé	Marie Curie fellowship, ERC	Tenure track, UCM, Madrid
2016-18	Elisabeth Agoritsas	Simons, ERC	Independent postdoc, EPFL Lausanne
2017-18	Ada Altieri	ERC	Maître de Conférences, Université de Paris
2017-20	Harukuni Ikeda	Japanese grant, Simons	Associate Professor, Tokyo University
2017-19	Dmytro Khomenko	Simons	Postdoc, Sapienza University
2018-19	Anna Paola Muntoni	Simons	Independent postdoc, Politecnico di Torino
2018-21	Alessandro Manacorda	ERC	Postdoc, Sapienza University
2019	Davide Facoetti	ERC	Research scientist, Faculty AI
2020	Misaki Ozawa	ERC	Permanent, CNRS - LiPhy Grenoble
2020-22	Giampaolo Folena	Simons, ERC	Postdoc, Duke University
2020-23	Felix Mocanu	Simons, ERC	Postdoc, University of Oxford
2020-23	Simone Ciarella	Simons, ERC	Permanent, Netherlands eScience Center
2021-22	Sabrina Cotogno	Simons	Researcher, Capgemini Engineering
2023-26	Saverio Rossi	Overheads	

Education

Courses attended during the undergraduate and PhD studies

(Physics department of the University of Rome “La Sapienza”)

- 1997-2000 Standard courses of the first three years of the undergraduate course in Physics
- 2000-2001 *Meccanica statistica* (Statistical Mechanics), Prof. C. Di Castro, 120h
Fisica dei sistemi disordinati (Physics of Disordered Systems), Prof. E. Marinari, 120h
Fisica teorica III (Quantum ElectroDynamics), Prof. N. Cabibbo, 120h
Fisica dei solidi (Solid State Physics), Prof. L. Pietronero, 120h
Fisica delle basse temperature (Quantum Many-Body Systems), Prof. C. Castellani, 120h
Programmazione orientata agli oggetti (Object-oriented Programming), Prof. G. Organtini, 30h
- 2001-2002 *Metodi matematici della fisica (corso avanzato)* (Stochastic Processes), Prof. G. Jona-Lasinio, 120h
Meccanica superiore (Statistical Mechanics, Dynamical Systems), Prof. G. Gallavotti, 120h
- 2002-2003 *Introduzione al modello standard e alle sue estensioni supersimmetriche*
(An introduction to the Standard Model and to its Supersymmetric Extensions),
Dr. E. Franco and Dr. L. Silvestrini, 60h
Fisica dei sistemi disordinati (Physics of Disordered Systems - for PhD students),
Dr. A. Cavagna and Dr. F. Ricci-Tersenghi, 60h
Teoria dei campi (Field Theory), Prof. M. Testa, 80h

Schools and conferences

- “8th International Workshop on Disordered Systems”, Andalo (Trento), Italy, March 12–15, 2001.
- “Unifying Concepts in Glass Physics”, conference, *Accademia dei Lincei*, Roma, Italy, February 26–March 2, 2002.
- “Field Theory and Statistical Mechanics”, conference, *Dipartimento di Fisica dell’università “La Sapienza”*, Roma, Italy, June 10–15, 2002.
- “Spectroscopic investigation of the collective dynamics in disordered systems”, summer school, *International Center for Theoretical Physics “Abdus Salam” (ICTP)*, Trieste, Italy, June 17–28, 2002.
- “Slow Relaxation and Nonequilibrium Dynamics in Condensed Matter”, summer school, *École de Physique des Houches*, Les Houches, France, July 1–26, 2002.
- “Perspectives in Mathematical Physics”, conference, *Dipartimento di Fisica dell’università “La Sapienza”*, Roma, Italy, September 4–7, 2002.
- “9th International Workshop on Disordered Systems”, Molveno (Trento), Italy, March 10–13, 2003.
- “The physics of complex systems (new advances and perspectives)”, summer school, International School of Physics “Enrico Fermi”, Course CLV, Varenna, Italy, July 1–11, 2003.
- “Supersimmetry and matrix models”, *XII national seminar in Theoretical Physics*, INFN, Parma, Italy, September 1–12, 2003.
- “Applications of random matrices to physics”, Marie Curie Training Course, *École de Physique des Houches*, Les Houches, France, June 6–25, 2004.
- “First Latin-American School and Conference on: Statistical Mechanics and Interdisciplinary Applications”, La Havana, Cuba, February, 28–March, 12, 2005.
- “Recent progress in glassy physics”, workshop, Institut Henri Poincaré, Paris, France, September 27–30, 2005.
- “Jamming”, workshop, Aspen Center for Physics, Aspen (CO), USA, July, 29–August, 13, 2007.