

Luca Biferale

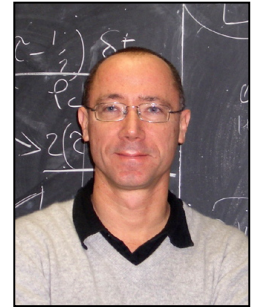
Born August 12, 1965, in Imperia (Italy)
Married, two children (born 1996 and 2000)

Nationality: Italian

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Dept. Physics and CAST (Inter-department Centre for Applications of Calculus to Science and Technology). **University of Rome Tor Vergata**, Italy. **email:** biferale@roma2.infn.it



EDUCATION

Oct. 1992 PhD. U. of Rome *La Sapienza*. Title: Anomalous scaling laws in fully developed turbulence.

Mar. 1989 Master degree in Physics *cum laudem*, U. of Rome *Tor Vergata*. Title: Renormalization group study of XY and Heisenberg models in 2D.

CURRENT POSITION

Apr. 2014 - present **Full Professor of Theoretical Physics, Mathematical and Numerical Modelling**
Dept. Physics and CAST, University of Rome *Tor Vergata* (Italy)

OTHER POSITIONS

- Mar. 2016 Visiting Professor at the **Johns Hopkins University** (Baltimore, USA)
- Jan. 2011 - Dec. 2011 Visiting Professor at **Technische University Eindhoven** (The Netherlands)
- June 2011 & July 2012 Visiting Professor at the **Observatory of Nice** (France)
- July 2008 Visiting Scientist at **University of Chicago** (USA)
- June & July 2006 Visiting Professor at the **Johns Hopkins University** (Baltimore, USA)
- Jan. 2005 - Mar. 2014 Associate Professor. Dept. Physics, **University of Rome Tor Vergata** (Italy)
- Jan. 1995 - Dec. 2004 Researcher. Dept. of Physics, **University of Rome Tor Vergata** (Italy)
- Mar. 1989 - Dec. 1989 Fellow **European Centre Scientific & Engineering Computing, ECSEC-IBM** (Italy)

FELLOWSHIPS/HONOURS/AWARDS

- 2013 **ERC AdG NewTURB**
- 2010 **Elected Fellow**. EUROMECH Society, division of *Fluid Dynamics*
- 2008 **Elected Fellow**. APS, division of *Statistical and Nonlinear Physics*
- 1986/87/88/89 Distinguished undergraduate student. Awarded by Acc. Nazionale dei Lincei (Italy)

TRAINING OF GRADUATE STUDENTS AND POSTDOC FELLOWS (only those hired by me)

PhD. Total 17. I list only those ongoing: F. Milan, G. Tauzin, G. Margazoglou, X. Xue, F. Guglietta, G. Goedert, L. Agasthya.

PostDoc. Total 16: I. Daumont, B. Devenish, A.S. Lanotte, G. Manzi, E. Foard, G. Sahoo, F. Bonaccorso, S.K. Malapaka, K. Gustafsson, M. Linkmann, M. Buzzicotti, M. De Pietro, P. Clark di Leoni, Q. Ni, R. Scatamacchia, I. Mazzitelli.

Key numbers (scientific impact, Google Scholar)

Number of published papers: 230+ (2 Phys. Rep.; 1 ARFM; 1 PRX; 25 PRL; 92 JFM/PRE-PRF/PoF/JoT)

Hirsch-index (H): 48

m-index (H/# years after PhD): 1.84

i10-index (# publications with more than 10 citations): 135+

Citations (total): 7500+; **Citations (2018):** 760

TEACHING ACTIVITIES

Undergraduate: Dept. Physics (DP) and Faculty Mech. Engineering (ME) U. Rome Tor Vergata: Mathematical Methods for Physics (DP); Dynamical Systems (DP); Turbulence and Complex Fluids (ME), Quantum Mechanics (DP), Statistical Mechanics (DP), Computational Physics (DP). Continuously from 1994-present, two courses per year among the ones cited.

Postgraduate: Faculty of Engineering, U. Rome La Sapienza: Turbulence (short course, 2000); **Royal Institute of Technology Stockholm:** Lagrangian and Eulerian Turbulence (short course, 2012); **Dept. Physics University Hong Kong:** Modern problems in turbulence (short course, 2003)

Sustech (Shenzhen, China): Statistical tools for Turbulence (short course, 2019)



UNIVERSITY OF ROME "TOR VERGATA"

MEMBER STEERING/ORGANISING COMMITTEES (last 10 years only)

- **HPC-LEAP** Conference. Cambridge, UK 2018
- **FSIM-2017**: Fluid and structures: interactions and modeling (COST meeting). Naples, Italy 2017
- HPC applications to Turbulence and Complex Flows (**HPC-LEAP School**). Rome, Italy 2016
- **FlowMat 2015** Flowing Matter Across Scales (ERC & COST meeting). Rome, Italy 2015
- Workshop on **Instantons and Extreme Events in Turbulence** (IMPA). Rio de Janeiro, Brasil 2015
- **9th European Fluid Mechanics Conference** (EFMC9). Rome, Italy 2012
- Program on **New Directions in Turbulence**. Kavli Institute of Theoretical Physics (KITPC). Beijing, Cina 2012
- **Breakup of small aggregates in turbulence** (COST meeting). Rome, Italy 2011
- **Numerical issues in Lagrangian and Eulerian Turbulence** (COST meeting). Rome, Italy 2010
- **Discrete Simulations of Fluid Dynamics** 19th, DSFD2010 Conference. Rome, Italy 2010

INSTITUTIONAL RESPONSIBILITIES (in gray those still active)

2018-2022	Supervisory Board of the European Joint Doctorate Program STIMULATE
2014-2019	Supervisory Board of the European Joint Doctorate Program HPC-LEAP
2014-2018	Managing Committee. COST Action <i>Flowing Matter</i> ESF
2017	Access Committee PRACE (Partnership Advancing Computing in Europe).
2017	Science Board of the European Open Science Cloud for Research Pilot Projects (EOSC).
2017-present	Scientific Board of Italian Technion Association
2015-present	Executive Committee . Dept. Physics University of <i>Tor Vergata</i> , Rome (Italy)
2014-present	EUROMECH Fluid Mechanics Prize and Fellow Committee
2013-present	Director of CAST (Inter-department Centre for Applications of Calculus to Science and Technology), Univ. <i>Tor Vergata</i> , Rome (Italy)
2013-2017	Physical Science Working Group (European Space Agency)
2013-2017	Steering Committee European High Performance Infrastructure in Turbulence . FP7-EU
2012-2017	Scientific Committee High Performance Computing Centre CINECA , Bologna (Italy)
2013-present	Doctoral Studies Committee . Dept. Physics Univ. <i>Tor Vergata</i> , Rome (Italy)
2008-2013	Financial Rapporteur & Managing Committee. COST Action <i>Particles in Turbulence</i> . ESF
2007-2009	Coordinator ERASMUS Project. Dept. Physics Univ. <i>Tor Vergata</i> , Rome (Italy)
2004-2009	Euromech board of the European Turbulence Conference
2006-2016	National Coordinator, Scientific Initiatives <i>Particles and Fields in Turbulence</i> INFN (Italy)

EDITORIAL AND REVIEWING ACTIVITIES (in gray those still active)

2007-2013 Divisional Associate Editor of **Physical Review Letters** (Fluid Mechanics)

2004-present Associate Editor **Journal of Turbulence**

2011-present Editorial Board of **European Journal of Physics E** (EPJE)

2007-2011 Editorial Board of **European Journal of Physics B** (EPJB)

Evaluator for (only major): Italian Ministry of Research (**MIUR**), European Science Foundation (**ESF**), European Research Council (**ERC**), **US-Israel** binational science foundation. Italian Supercomputing Resources Allocations (**ISCRA**); Partnership for advanced computing in Europe (**PRACE**). **Italian-French** University. **ETH** Zurich. **Agence Nationale de la Recherche** (France). European Cooperation in Science and Technology (**COST**).

MEMBERSHIPS OF SCIENTIFIC SOCIETIES (only those still active)

INFN (National Institute of Nuclear Physics); **EUROMECH** (European Mechanics Society); **APS** (American Physical Society); **ICTR** (International Centre for Turbulence Research); **CECAM** (Centre Européen de Calcul Atomique et Moléculaire)