

CURRICULUM VITAE ET STUDIORUM

Valeria Ricci

Assistant Professor, University of Palermo (Italy)
Department of Mathematics and Computer Science

Languages: Italian (native), English, French, German

Research interest: kinetic and hydrodynamic partial differential equations, asymptotic limits of particle systems, mathematical modelling of gases and plasmas, radiative transfer, applied mathematics, mathematical physics.

University Education:

Degree in Physics, University "La Sapienza" of Rome
Ph. D. in Mathematics, University "La Sapienza" of Rome

Positions held:

Visiting Professor, Rutgers University, USA, September 1999- August 2001 (grant by foundation BLANCEFLOR Boncompagni-Ludovisi née Bildt),

Post-doc position (TMR), ENS-Cachan, France, June 1999, March-July 2000

Chalmers University, Gothenburg, Sweden, August-September 2000

Research contract (Affidamento d'incarico), University "La Sapienza" of Rome, October-December 2001

Research contract (Assegno di ricerca), University "La Sapienza" of Rome, May 2002- April 2004

Research contract (Collaborazione coordinata continuativa), University "La Sapienza" of Rome, May-November 2004

Assistant Professor (Ricercatore), University of Palermo, January 2005-present

Other Activities:

Cooperation with ENEA-Casaccia, September 1994 - March 1995 (numerical modelling of the Mediterranean Sea).

Cooperation with ISC-CNR since 2019 (Ignitor-ISC Project)

Participation to the EU TMR network "Asymptotic methods in kinetic theory", 1999 - 2001

Participation to the EU network HyKE (Hyperbolic and Kinetic Equations), 2002-2005

Participation to joint industry projects within LRC ENS-Cachan/CEA, since 2005

Participation to the Ignitor Project, PI Prof. ██████████, since 2018

Research projects (as PI):

research project "ex-60%" (University of Palermo) 2005, 2007, 2012

GNFM research projects (IndAM), 2008, 2009, 2011, 2013, 2015, 2017

Referee and review activities:

Referee of research proposals PRIN (Research Project of National Interest) and FIRB (Future in research) for the Italian Ministry of Education, University and Research (MIUR)

Reviewer of research proposals for the Science Fund of the Republic of Serbia

Referee, reviewer and compiler of scientific entries (mathematics, physics) for Istituto della Enciclopedia Italiana (Treccani)

Reviewer for Mathematical Reviews (AMS) and Zentralblatt MATH (EMS)

Long term invitations:

IHES, January - February 2000

Centre E. Borel, November 2002

ENS-Cachan, Visiting Professor November 2005 (GREFI-MEFI), June 2002, June 2006, November 2007, June 2008, October, 2010, (+Ecole Polytechnique) January 2011

ENS-Cachan + CMLS Ecole Polytechnique 18th June-5th July 2011, January-February 2012, February 2015 .

IMJ-PRG-Paris7 + CMLS Ecole Polytechnique, February-March 2016

Invited presentations:

-Euroconference on Asymptotic Methods and Applications in Kinetic and Quantum-Kinetic Theory" (plenary lecture), Granada September 17th – 21st 2001.

-Workshop "Systèmes à grand nombre de particules, quantiques et classiques: descriptions stochastiques et déterministes", Rennes May 26th – 28th 2004.

-Sixth International Workshop on Mathematical Aspects of Fluids and Plasma Dynamics, Kyoto (Japan) September 19th – 23rd 2004.

-Communauté de Travail des Pyrénées/ Journées EDPs et Applications. Laboratoire MIP, Toulouse (France), September 29th - October 2nd 2005.

-Oberwolfach Conference "Classical and Quantum Mechanical Models of Many-Particle Systems", Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach (Germany), December 3rd – 9th 2006.

-Dipartimento di Fisica, Università di Pisa (Italy), June 14th 2007.

-Conference "Probabilistic Methods in Kinetic Theory", CIRM Luminy, Marseille (France), July 11th-15th 2011.

-Workshop "Third Minho Meeting on Mathematical Physics", Centro de Matemática (Dep. de Matemática e Aplicações), Universidade do Minho, Braga (Portugal), November 4th 2011

-GDT Homogenization et échelles multiples, Laboratoire Jacques Louis Lions, CNRS-ParisVI-ParisVII, Paris (France), February 6th 2012.

-Minisymposium "Asymptotic Analysis and Homogenization" at 7th European Conference on Elliptic and Parabolic Problems, Gaeta (Italy), May 21st - 25th 2012.

-Meeting "Particle systems and PDE's", Centro de Matemática (CMAT), Universidade do Minho, Braga (Portugal), December 5th-7th 2012

-Journées CMLA - EDP 2013, Centre de Mathématiques et des Leurs Applications (CMLA), ENS Cachan, France, June 3rd-5th 2013.

-Meeting "Particle systems and PDE's II", Centro de Matemática (CMAT), Universidade do Minho, Braga (Portugal), December 12th-13th 2013

-Workshop "Problems on Kinetic Theory and PDE's", Departman za Matematiku i Informatiku, University of Novi Sad, Novi Sad (Serbia), September 25th-27th 2014

-Meeting "Particle systems and PDE's III", Centro de Matemática (CMAT), Universidade do Minho, Braga (Portugal), December 17th-19th 2014

-Assemblea Scientifica Nazionale GNFM, Montecatini Terme (Italy), October 21st-23rd 2015

-Meeting "Particle systems and PDE's IV", Centro de Matemática (CMAT), Universidade do Minho, Braga (Portugal), December 16th-18th 2015

-Congresso Nazionale SIMAI2016 - Bi-annual congress of the Italian Society of Industrial and Applied Mathematics (SIMAI 2016), Politecnico di Milano, Milan (Italy), 13-16/9/2016

-Meeting "Particle systems and PDE's V", Centro de Matemática (CMAT), Universidade do Minho, Braga (Portugal) 28-30/11/2016

-Meeting "Particle systems and PDE's VI", Université Nice Sophia Antipolis, Nice (France), November 27th-December 1st 2017

-Assemblea Scientifica Nazionale GNFM, Montecatini Terme (Italy), October 4th-6th 2018

-Meeting "Particle systems and PDE's VIII", University of Lisbon, Lisbon (Portugal), December 2nd-6th 2019

- Workshop "The Mathematical Theory of Particle Suspensions", Institute for Applied Mathematics, Hausdorff Center for Mathematics, Bonn (Germany), January 20th-22nd 2020
- Meeting "Particle systems and PDE's IX", University of Minho, Braga (Portugal), July 19th-23rdst 2021

Teaching experience:

Teaching Assistant:

Mathematical Physics at INdAM, 1996-97, 1997-98; Calculus II, 3rd University of Rome, 2001-2002; Fundamental of Mathematical Physics, University "La Sapienza" of Rome, 2002-03; Mathematical Analysis II, University of Palermo, 2005; Rational Mechanics, University of Palermo, 2012

Courses:

Mathematical physic models, 3rd University of Rome, 1998-99
 Rational Mechanics, University of Palermo, 2005,2011
 Numerical Methods for Engineering, University of Palermo, 2005, 2006
 Calculus II, University of Palermo, 2007, 2008, 2010
 Analysis, University of Palermo, 2014
 Mathematical Physics (Part 1 of 2), University of Palermo, 2015-present

Selected Publications:

- L. Desvillettes, V. Ricci "A Rigorous Derivation of a Linear Kinetic Equation of Fokker-Planck Type in the Limit of Grazing Collisions", Journal of Stat. Phys., vol.104 (2001), n. 5/6
- F. Bonetto, D. Daems, J.L. Lebowitz, V. Ricci "Properties of stationary non equilibrium states in the thermostatted periodic Lorentz gas II: the many point particles system", Phys. Rev. E (3), vol.65 (2002), n.5, 9 pp.
- L. Desvillettes, V. Ricci "Non markovianity of the Boltzmann-Grad limit of a system of random obstacles in a given force field", Bull. Sci. Math., vol.128 (2004), n.1, pp.39-46.
- V. Ricci, B. Wennberg "On the derivation of a linear Boltzmann equation from a periodic Lorentz gas", Stoch. Process. Appl., vol.111 (2004), pp. 281-315.
- L. Desvillettes, F. Golse, V. Ricci "The mean-field limit for solid particles in a Navier-Stokes flow", J. Stat. Phys., vol. 131 (2008), p. 941-967
- Y. Elskens, M. Kiessling, V. Ricci, "The Vlasov limit for a system of particles which interact with a wave field". Comm. Math. Phys., vol. 285 (2009) n.2; p. 673-712
- C. Bernardin, V. Ricci, "A simple particle model for a system of coupled equations with absorbing collision term" Kinetic and Related Models, vol. 4 n.3 (2011); p. 633-668
- D. Bouche, A. Decoster, L. Desvillettes, V. Ricci "A Coherent Derivation of an Average Ion Model Including the Evolution of Correlations Between Different Shells", MathematicS in Action, vol.6 n.2 (2013), p.1-14
- F. Golse, C. Mouhot, V. Ricci "Empirical measures and Vlasov Hierarchies", Kinetic and Related Models, vol.6 n.4, p.919-943
- L. Desvillettes, F. Golse, V. Ricci, "Derivation of a homogenized two-temperature model from the heat equations", ESAIM: Mathematical Modelling and Numerical Analysis, vol.48 (2014), p.1583-1613
- Bernard E, Desvillettes L, Golse F, Ricci V "A Derivation of the Vlasov-Stokes System for Aerosol Flows from the Kinetic Theory of Binary Gas Mixtures", Kinetic and Related Models (2018)