Curriculum Vitae

INFORMAZIONI PERSONALI

Nome	VALERIA
Cognome	RICCI
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FORMAZIONE TITOLI

Degree in Physics, University "La Sapienza" of Rome, 1993 (thesis subject: non-linear effects in the propagation of gravitational waves)
Ph. D. in Mathematics, University "La Sapienza" of Rome 1999 (thesis subject: kinetic limit for particles systems)

ATTIVITA' DIDATTICA

Teaching Assistant:
Mathematical Physics at INdAM (Istituto Nazionale di Alta Matematica), 1996-97, 1997-98
Calculus II at Physics Department, 3rd University of Rome, 2001-2002
Fundamental of Mathematical Physics, at Mathematics Department, University "La Sapienza" of Rome, 2002-03
Mathematical Analysis II, at Aerospace and Chemistry engineering, University of Palermo, 2005
Rational Mechanics, Faculty of Engineering, University of Palermo, 2012
Courses:
Mathematical physic models, at Architecture Faculty, 3rd University of Rome, 1998-99
Rational Mechanics, Aerospace Engineering, University of Palermo, 2005
Numerical Methods for Engineering, Chemical Engineering, University of Palermo, 2005, 2006
Calculus II, Faculty of Engineering, University of Palermo, 2007, 2008, 2010
Rational Mechanics, Faculty of Engineering, University of Palermo, 2011
Analysis, School of Fundamental and Applied Sciences, Informatics, University of Palermo, 2014
Mathematical Physics (Part 1 of 2), School of Fundamental and Applied Sciences, Mathematics, University of Palermo, 2015-present

RICERCHE FINANZIATE

Research projects (as PI):

research project "ex-60%" (University of Palermo) 2005, 2007, 2012
GNFM research projects (IndAM), 2008, 2011, 2013, 2015, 2017

INCARICHI / CONSULENZE

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)

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:

ASSOCIAZIONI SCIENTIFICHE

Member of GNFM (Gruppo Nazionale per la Fisica Matematica)

PUBBLICAZIONE

Articles
-E. Caglioti, M. Pulvirenti, V. Ricci "Derivation of a linear Boltzmann equation for a lattice gas", Markov Processes. Related Fields, vol. 6 (2000) n.3, pp.265-285
-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.
-V. Ricci "Non Markovian behavior of the Boltzmann-Grad limit of linear stochastic particle systems", Commun.Math. Sci., Supplemental Issue, N. 1 (2007), pp. 95-105.
-L. Desvillettes, V. Ricci "The Boltzmann-Grad Limit of a Stochastic Lorentz gas in a force field", Bulletin of the Institute of Mathematica, Academia Sinica (NS), vol. 2 (2007), n.2, pp. 637-648
-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,
-G. Cavallaro, L. Desvillettes, V. Ricci, "About the link between the detailed description of transitions in an ion and the average ion models", Commun. Math. Sci., vol.7 n.2 (2009), 471-488
-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
-F. de Vuyst, V. Ricci, F.Salvarani, "Nonlocal second order vehicular traffic flow models and Lagrange-remap finite volumes" Finite Volumes for Complex Applications VI Problems & Perspectives, Springer Proceedings in Mathematics, vol. 4 (2011), p. 781-789
-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.6n.4, p.919-943
-V. Ricci "Large number asymptotics for two--component systems with self--consistent coupling". From Particle Systems to Partial Differential Equations, Springer Proceedings in Mathematics & Statistics, vol. 75 (2015), p. 285-300
-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
-V. Ricci "Modelling of systems with a dispersed phase: "measuring" small sets in the presence of elliptic operators". From Particle Systems to Partial Differential Equations III, Springer Proceedings in Mathematics & Statistics (2015), vol. 162, p. 285-300.
-V. Ricci "Derivation of models for thin sprays from a multiphase Boltzmann model", submitted
-Bernard E, Desvillettes L, Golse F, Ricci V " A Derivation of the Vlasov-Navier-Stokes Model for Aerosol Flows from Kinetic Theory", Commun. Math. Sci., vol. 15 (2017), p. 1703-1741.
-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, vol. 11 (2017), p. 43-69.

-L.Desvillettes, F.Golse, V.Ricci "A formal passage from a system of Boltzmann equations for mixtures towards a Vlasov-Euler system of compressible fluids", Acta Mathematicae Applicatae Sinica, in press.

Encyclopedia Articles:
-"Meccanica Statistica", Enciclopedia Italiana -IX Appendice, voce, Istituto dell'Enciclopedia Italiana, (2015)
-"Castelnuovo, Emma", Enciclopedia Italiana -IX Appendice, biografia, Istituto dell'Enciclopedia Italiana, (2015)
-"Ladyzhenskaya, Olga", Enciclopedia Italiana-IX Appendice, biografia, Istituto dell'Enciclopedia Italiana, (2015)
-"Lax, Peter", Enciclopedia Italiana-IX Appendice, biografia, Istituto dell'Enciclopedia Italiana, (2015)
-"Malliavin, Paul", Enciclopedia Italiana-IX Appendice, biografia, Istituto dell'Enciclopedia Italiana, (2015)

Other Publications
-A.Degasperis, V. Ricci "Nonlinearity and dispersion in the propagation of gravitational waves", Cryogenic gravitational waves antennae: a progress workshop; Legnaro 19-22/6/1993
-A. Degasperis, V. Ricci "Propagation of gravitational waves in matter" Proceedings of the International
-Conference on Gravitational Waves: sources and detectors. Cascina (Pisa), 19-23 marzo 1996 (World Scientific Publishing Co, Singapore, 1997).
-V. Ricci "Derivations of kinetic equations from systems of particles" (Abstract of PhD thesis),Boll. Unione Mat. Ital., Sez. A, Mat. Soc. Cult. (8) 3 Suppl.,pp.197-200 (2000)
-V. Ricci "Rigorous analysis of a model of spray in quasi-static condition'', Oberwolfach reports- OWR, vol. 3, n. 4, Report n.54 (2006), 3244-3245

-V.Ricci "Alessio Figalli", Libro dell'anno 2018,Istituto dell'Enciclopedia Italiana, in press.

ATTIVITA' SCIENTIFICHE

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

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: déscriptions stochastiques et deterministes", 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 Pyrenées/ 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 (Itaky), 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 Aplicaç es), Universidade do Minho, Braga (Portugal), November 4th 2011
-GDT Homogeneization et echelles 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", Laboratoire Jean-Alexandre Dieudonné, Université de Nice Sophia Antipolis, Nice (France) 27/11-1/12/2017

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

AMBITI DI RICERCA

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

ALTRE ATTIVITA

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