

Curriculum vitae

Giacomo Parigi

Associate Professor, University of Florence (Italy)

born in Borgo San Lorenzo (Florence, Italy) on 17.09.1967

Education and positions held

Degree in Physics cum laude at the University of Florence (1992) and PhD in Chemistry at the University of Florence. Postdoctor, Researcher (1999-2006) and Associate Professor of Chemistry (2006-) at CERM, University of Florence.

Member of the Management Committee of the European COST Action TD1103 "European Network for Hyperpolarization Physics and Methodology in NMR and MRI" (28/10/2011-27/10/2015); member of the Management Committee of the European COST Action CA15209 "European Network on NMR Relaxometry " (30/09/2016-29/09/2020).

Lecturer of J. Kepler University Linz, Doctorate College course "Nanocell" (01/10/2017-31/03/2018).

Member of the Board of the Teachers of the International Doctorate in Structural Biology of the University of Florence (2001-).

Member of the Consiglio Direttivo of GIDRM – Gruppo Italiano Discussione Risonanze Magnetiche (01.01.2020-).

Research interests

His research activity is mainly oriented to the analysis of paramagnetic effects in proteins and complexes with paramagnetic metal ions, in the frame of the nuclear magnetic resonance (NMR) studies for the structural and dynamic characterization of biological molecules. These researches are aimed at the definition of improved methodologies for an accurate determination of the structures of proteins and protein complexes in solution, and of their mobility, through NMR spectroscopy. Another field of interest is water proton relaxivity in the presence of paramagnetic complexes, like contrast agents for magnetic resonance imaging (MRI) or paramagnetic molecules for dynamic nuclear polarization (DNP), as well as of protein protons, for getting information on protein mobility and aggregation.

Books and editorial activities

He is coauthor with I. Bertini and C. Luchinat of the book "*Solution NMR of Paramagnetic Molecules*" (Elsevier, 2001), and coauthor with I. Bertini, C. Luchinat and E. Ravera of the book "*NMR of Paramagnetic Molecules*" (Elsevier, 2017). He is coeditor with I. Bertini and K.S. McGreevy of the book "*NMR of Biomolecules: Towards Mechanistic Systems Biology*" (Wiley-VCH, 2012) and coeditor with C. Luchinat and E. Ravera of the book "*Paramagnetism in Experimental Biomolecular NMR*" (RSC, 2018).

Organization of congresses

Member of the organizing committee of the conferences: “WorldWide Magnetic Resonance Conference”, Joint Euromar 2010 and 17th ISMAR Conference, Florence, July 4-9, 2010; “EMBO Workshop on magnetic resonance for cellular structural biology”, Principina Terra (Grosseto), June 1-6, 2014; EMBO Practical Course on Solution and solid-state NMR of paramagnetic molecules, Sesto Fiorentino, Italy, July 13-19, 2014; applied training courses on “Expression and purification of metalloproteins for structural studies” and “Paramagnetic restraints in hybrid methods for protein structural analysis”, Sesto Fiorentino, Italy, May 11-13, 2016, organized within the training activities of the Marie Curie Action of European Union’s Seventh Framework Programme ITN 317127 (pNMR).

Organizer of the EMBO Workshop on Challenges for Magnetic Resonance in Life Sciences, Principina (GR), Italy, May 27-31, 2018.

Conferences

Invited to present seminars and lectures at various institutions and at the following conferences and training courses: “Scuola di Risonanza Magnetica Nucleare: “Teoria ed applicazioni del rilassamento” Torino, September 2, 1994; “The Italian-Swedish symposium on NMR of paramagnetic proteins and model systems” Stockholm, September 24, 1998; “EuroLab Course: Advanced Computing in NMR Spectroscopy” Florence, September 9-14, 2001; COST D18 meeting “Analysis of ¹H NMRD profiles and ESR lineshapes of increasingly large Gd(III) complexes: Theoretical challenges and new approaches” Lausanne, October 1-2, 2004; EUROMAR 2005, Veldhoven (The Netherlands), July 3-8, 2005; PRIN meeting “Protein-protein and protein-ligand interactions”, Florence, November 25, 2006; EU-NMR Project meeting, Florence, January 17, 2007; EU-NMR Project meeting, Königstein (Frankfurt), January 22, 2008; EU Design Study BioDNP meeting, Frankfurt, February 27-28, 2008; Advanced NMR Workshop “From data to structure”, Utrecht, May 29, 2008; EU Design Study Bio-DNP meeting, Florence, September 26-27, 2008; Summer school on “Field-cycling NMR relaxometry”, Mede (Pavia), June 1-3, 2009; The second Dynamic Nuclear Polarization Symposium, Königstein (Frankfurt), September 2-4, 2009; EMBO World Practical Course “Structure and dynamics of biomolecules by NMR Spectrometry”, Rosario (Argentina), September 21-30, 2009; Summer School “DNP at high magnetic fields - theory and applications”, Safed, (Israel), October 11-16, 2009; WeNMR Workshop “Computational aspects of the joint use of SAXS and NMR”, Florence, May 27, 2011; EUROMAR 2011, Frankfurt am Main, August 21-25, 2011; BioNMR meeting “Pushing NMR’s speed and sensitivity limits” Weizmann Institute (Israel), February 26-27, 2012; XLI National Congress on Magnetic Resonance, Pisa, September 17-19, 2012; 8th Conference on Fast Field Cycling NMR Relaxometry, Torino, May 23-25, 2013; pNMR ITN Network wide Training Course “Electronic and Nuclear Relaxation, and Electronic Structure Calculation”, Mariapfarr (Austria), February 22-24, 2014; “NMR relaxation: spins and molecules in motion”, Stockholm, May 13-14, 2014; GIDRM Workshop “NMR relaxometry: Principles and Applications”, Alessandria, July 7, 2014; EMBO Practical Course “Solution and solid-state NMR of paramagnetic molecules”, Sesto Fiorentino, July 13-19, 2014; XXVI ICMRBS, Dallas (USA), August 24-29, 2014; COST meeting “Paramagnetic relaxation and spin hyperpolarization”, Paris, May 4-6, 2015; “First International workshop on Reshaping Drug Discovery: The Intrinsically Disordered Proteome as Drug Target”, Ioannina (Greece), June 19,

2015; ITN pNMR workshop “pNMR - from rags to riches: Challenges and potentials of NMR on paramagnetic molecules”, Prague, July 4-5, 2015; INSTRUCT practical course “Advanced methods for the integration of diverse structural data with NMR data”, Utrecht, April 11-15, 2016; ITN pNMR training course “From the expression and purification of metalloproteins to the use of paramagnetic restraints in hybrid methods for protein structural analysis”, Florence, May 11-13, 2016; XLV National Congress on Magnetic Resonance, Modena, September 5-7, 2016; COST Action EURELAX “1st Workshop on Nuclear Magnetic Resonance Relaxometry”, Olsztyn (Poland), February 13-17, 2017; iNEXT training course “Bridging solution methods: from NMR to X-ray scattering and biophysics”, Patras (Greece), September 18-22, 2017; J. Kepler University Linz, January 15, 2018; Conference on NMR Relaxometry and Related Methods, Torino, January 29-31, 2018; COST Action EURELAX Training School “NMR relaxometry – theoretical modeling and data interpretation”, Graz (Austria), February 26-28, 2018; 2nd Workshop of Nuclear Magnetic Resonance Relaxometry, COST Action EURELAX, Prague, February 4-6, 2019; Training School “NMR relaxometry data analysis: theory and software”, Pavia, February 18-22, 2019; COST Workshop: “NMR Relaxometry for Interdisciplinary and Industrial Applications”, COST Action EURELAX, Grenoble, March 19-22, 2019; 11th Conference on Fast Field Cycling NMR Relaxometry, Pisa, June 5-7, 2019; XLVIII National Congress on Magnetic Resonance, L’Aquila, September 11-13, 2019; 3rd Workshop on NMR and MRI relaxometry in chemistry and biomedicine, COST Action EURELAX, Tallinn, February 17-19, 2020; 61st ENC, Baltimore (USA), March 8-13, 2020.

Scientific activity

Coauthors of more than 130 articles published in international peer reviewed journals. His h-index is 38, and his papers have been quoted almost 5000 times (Web of Science, May 2020).

Complete List of Publications in ORCID:

<http://orcid.org/0000-0002-1989-4644>