Personal data

Marco Radici was born on 09/09/1961 in Bergamo (Italy).
In 01/12/1988 he became Staff Researcher at Istituto Nazionale di Fisica Nucleare (INFN) at the local Pavia section.
Since 01/01/2007, he is Senior Staff Researcher at INFN-Pavia.

Education

1980: High School degree (Maturità classica, Liceo Ginnasio P. Sarpi, Bergamo).
1985: Laurea (Degree) in Physics at University of Pavia, score 110/110 cum laude; thesis title "Meson-exchange currents in electron-nucleus deep-inelastic scattering", supervisor Prof. S. Boffi
1985-1988: participation to international schools, e.g. Winter School on Hadronic Physics at Intermediate Energy, Folgaria (1986), 4th Students' workshop on Electromagnetic Interactions, Bosen (1987), International School of Nuclear Physics, Erice (1988)
1989: Ph. D. in Physics at University of Pavia; thesis title "Exchange currents and knockout reactions"; supervisor Prof. S. Boffi

Self assessment (updated on 18/11/2012)

Publications: 65 in international journals with peer review, 58 proceedings, 1 monography, 1 CERN COURIER report, 3 experimental proposals;
Talks: around 70, of which around 40 invited, at international workshops and conferences;
Citations: 2018 (Google Scholar); 1391 (inSPIRE); 1130 (WoS); 931 (Scopus);
h-index: 25 (Google Scholar); 21 (inSPIRE); 20 (WoS); 17 (Scopus);
i10-index: 48 (Google Scholar); 41 (inSPIRE); 33 (WoS); 33 (Scopus);
Number of paper cited 100+: 2; number of paper cited 50+: 5; number of paper cited 10+: 34 (inSPIRE).

Present relevant commitments

2009-2014: spokesperson for Theoretical Activities inside the Memorandum of Understanding between INFN and the Thomas Jefferson National Accelerator Facility (JLab), Newport News (Virginia, USA)
2008-today: national coordinator of INFN scientific project AD31 ”Structure of hadrons and of cold hadronic matter”
Referee of journals: Phys. Rev. Lett., Phys. Rev. D, Nucl. Phys. A, J. Phys. G, and of institutions: NSF (USA), FOM (The Netherlands)

Previous relevant commitments

2005-2011: Coordinator of the INFN-Pavia Theory Group and Member of Commissione Scientifica Nazionale IV (Theory Committee) of INFN
2006-2011: Referee of the INFN Theory Committee for the Nuclear and Hadronic Physics sector
2006-2011: manager of INFN Theory Committee databases for scientific projects, associated researchers, publications, and annual budget
2006-2009: member of several INFN Evaluation Committees, such as the INFN "Sergio Fubini" prize
2005: member of the working group “Fisica di e+e– ai Laboratori Nazionali di Frascati”, within the determination of the INFN Road Map for the decade 2006-2016

Scientific Activity

The research activity has been carried out in theoretical Nuclear and Hadronic Physics, focussing on the understanding of the structure of strongly correlated hadronic systems in terms of the dynamics of their elementary constituents, quarks and gluons, in the confined and nonperturbative regime.
Three main research fields:
1) electromagnetic response of medium-heavy/heavy nuclei in exclusive reactions where one or more nucleons are emitted under quasi-elastic conditions (knockout reactions) at low and high momentum transfer
2) study of nucleon electroweak structure (electromagnetic and axial charge distribution, magnetic moment, etc..) and of its resonances in quark models
3) general properties and models of parton transverse-momentum distribution and fragmentation functions that describe the 3-dimensional elementary (spin) structure of hadrons; phenomenology of such objects through the analysis of azimuthal (spin) asymmetries in (semi-)inclusive fundamental processes on (un)polarized hadrons: Deep-Inelastic Scattering with lepton probes, e+e- annihilation to hadronic states, production of Drell-Yan lepton pairs in hadronic collisions.
The research activity has been characterized by a systematic collaboration with experimental working groups at international laboratories (NIKHEF-Amsterdam, SACLAY-Paris, MIT-USA, and later JLab-USA, CERN, DESY, BNL-USA), providing software codes for the analysis, participating in some proposals for new experiments, and becoming also co-spokesperson of one of them.
The main results of the research field 1) has been acknowledged and summarized in an invited book for the series "Oxford Studies in Nuclear Physics" by Oxford University Press.

Teaching activity

1988-1993: Teaching assistant of the course "Istituzioni di Fisica Teorica" (Quantum Mechanics, Prof. S. Boffi) at University of Pavia
1990-1994: post-graduate lectures at University of Pavia for the courses "Nuclear Physics I" and "Nuclear Physics II"
1993-1995: Contract Professor for the complementary course "Introduction to the theory of differential equations and to the matrix calculus for problems in Theoretical Physics" at University of Pavia
2003: post-graduate lectures at University of Pavia for the course "Complements of Nuclear Physics - I"
2007: post-graduate lectures at the University of Pavia for the course "Complements of Theoretical Physics - I"
2010: post-graduate lectures "Phenomenology of TMD's" at the International PhD School in Physics "Niccolò Cabeo" at University of Ferrara on "Transverse Momentum Dependent Parton Distribution Funcitons", 24-28 May 2010
2004-2012: Contract Professor for the course "Hadronic Physics" at University of Pavia
2011-today: Coordinator of the Ph.D. course "Strong Interactions" at the Graduate School in Physics, University of Pavia
2012-today: Contract Professor for the course "Nuclear Physics - II" at University of Pavia

Tutoring

1990-2005: Advisor of 4 undergraduate students and 3 post-docs at University of Pavia
2005: Advisor of the thesis "Transverse distribution of spin in the proton" by M. Pincetti for his Master degree in Physics at University of Pavia, supervisor Prof. S. Boffi
2006: Supervisor of the thesis "The Sivers function in a spectator diquark model" by F. Conti for his Master degree in Physics at University of Pavia
2009-2011: Tutor of A. Courtoy, holding a post-doc position for foreigners funded by INFN in the context of the local group of "Hadronic Structure and QCD"
2012: Co-supervisor of the thesis "Exploring the flavor dependence of unpolarized transverse-momentum-dependent distributions" by A. Signori for his Master degree in Physics at University of Pavia

Conference organization

2004 : co-organizer of workshop “Transversity: New Developments in Nucleon Spin Structure” at ECT* (Trento); proceedings published on special issue of CERN COURIER in occasion of 50o anniversary of CERN foundation
2011: member of the Organizing Committee of the mini-workshop Dihadron Fragmentation Functions (DiFF), Pavia (Italy), 5-7 Sept. 2011
2012 : co-organizer of the workshop “Drell-Yan Scattering and the Structure of Hadrons” at ECT* Trento (Italy), 21-25 May 2012
2012: member of the Scientific and Organizing Committee of Incontro Nazionale di Fisica Nucleare (INFN2012), INFN-LNS Catania (Italy), 12-14 Nov. 2012
2012-today: member of the Program Committee of the International Nuclear Physics Conference 2013 (INPC2013), Firenze (Italy), 2-7 June 2013
2012-today: member of the Organizing Committee of the workshop "3D-Structure of Nucleons and Nuclei", Palace Hotel Como (Italy), 10-14 June 2013

Other commitments

1993-1999: spokesperson of the Pavia Unit Researchers

2001: member of the Committee for the Final examination for Ph.D. in Physics, curriculum of Theoretical Physics and Mathematics, University of Pavia
2002 : external expert of the Committee for the final examination for the Ph.D. in Physics at Vrije Universiteit, Amsterdam
2005: member of the working group "Spin Physics at RHIC-II" for the upgrade RHIC-II Science Workshops at BNL
2006-2008: member of Evaluation Committee for the INFN "Sergio Fubini" prize
2007-2009 : member of the Evaluation Committee for INFN scientific post-doc assignment
2003-2007 : INFN representative member of Scientific Committee of Biblioteca di Fisica “A. Volta” at University of Pavia
2008-2013: INFN representative member of the Scientific Committee, Biblioteca delle Scienze at University of Pavia

Furher professional activity
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1991: Visiting Scientist at University of Illinois at Urbana-Champaign (USA)
1992: Visiting Scientist at University of Illinois at Urbana-Champaign (USA)
1997-1999: participation to MIUR project PRIN 1997 "Theoretical Physics of Nucleus and of many-body systems"
1999-2001: participation to MIUR project PRIN 1999 "Theoretical Physics of Nucleus and of many-body systems"
2001-2003: participation to MIUR project PRIN 2001 "Theoretical Physics of Nucleus and of many-body systems"
2003-2005: participation to MIUR project PRIN 2003 "Theoretical Physics of Nucleus and of many-body systems"
1996-2000: member of the Pavia unit of HaPHEEP, Training and Mobility of Researchers network of the EC FP4 program, approved under contract n. ERBFMRXCT96-0008
2000-2004: member of the Pavia unit of ESOP, Research Training Network of the EC FP5 program, approved under contract n. RTN1-1999-00117
2004-2008: Integrated Infrastructure Initiative in Hadronic Physics (I3HP) of the EC FP6 program, approved under contract n. RII3-CT-2004-506078, Local Coordinator of unit "Pavia" for Network N7 “Transversity: exploring the unknown transverse spin structure of the Nucleon”, and member of Network N5 “HadronicTh: Structure and Dynamics of Hadrons”, and member of the Joint Research Activity JRA5 “GPD: Generalized Parton Distributions”
2009-2011: HadronPhysics2 - Integrated Activity “Study of Strongly Interacting Matter” of the EC FP7 program, approved under contract n. 227431, Local Coordinator of unit "Pavia" for the Work Package 3 “TMD-Net”
2009-2012 : partecipation to PRIN 2008 (EKLACK) "Structure of the nucleon: transverse momentum, transverse spin and orbital angular momentum”
2011-2014: HadronPhysics3 - Joint Research Activity "Study of Strongly Interacting Matter" of the EC FP7 program, approved under the contract n. 283286, member of the team "Pavia" for the Work Package 29 "3D-Mom"
2012: co-spokesperson of proposal "Measurement of Transversity with Dihadron production in SIDIS with transversely polarized target", conditionally approved by JLab PAC39
1989-today: member of the Società Italiana di Fisica
2002-today: member of the Jefferson Lab User Group, Newport News (Virginia-USA)
2004-today: associate member of European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*, Trento)