

CURRICULUM VITAE¹

PERSONAL INFORMATION

Family name, First name: Bertacco Riccardo
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Date of birth: 25th July 1968. Nationality: Italy
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FULL TRACK RECORD

144 Papers in international journals (Scopus). 3 chapters of scientific books. 8 patent applications (3 granted patents). H-index: 28 (Scopus) – 29 (Google Scholar). Total citations: 2515 (Scopus) – 3177 (Google Scholar). Total budget of past and current granted research projects of my group: 2.680.000 €.

SHORT PERSONAL PROFILE

I am a Full Professor of Physics at the Physics Department of Politecnico di Milano. Since 2010 I'm leading the Nanobiotechnology and Spintronics group (NaBiS) of the Physics Department. I'm the director of Polifab (<http://polifab.polimi.it>), the facility for micro and nanofabrication of Politecnico di Milano, consisting in a clean room of 370 m² that will reach 650 m² by summer 2020, including a Joint Research Center with ST Microelectronics (total budget for Polifab realization and upgrade: 4.250.000 €). Starting from a background on electron spectroscopy and surface magnetism, my research activity is nowadays focused on spintronics, nanoelectronics and the applications of magnetism to biology and medicine.

EDUCATION

1994: Master degree in Electronic Engineering at Politecnico di Milano (100/100 cum Laude, Supervisor: Prof. L. Braicovich)
2000: PhD in Physics on magnetic thin films investigated by spin resolved electron spectroscopy (Supervisor: Prof. F. Ciccacci)

CURRENT POSITION(S)

2018 April - : Full Professor of Physics at Politecnico di Milano
2019 January - : Director of Polifab

PREVIOUS POSITIONS

1994 January – July: Electronic designer at BTicino (Varese, Italy)
1994 – 1996: Volunteer in Cameroun in a social project granted by Ministero Affari Esteri
1996 – 1999: PhD in Physics at Politecnico di Milano
1999 – 2005: Assistant professor at the Physics Department of Politecnico di Milano.
2005 – 2018: Associated Professor at the Department of Physics of Politecnico di Milano
2013 - 2018: Deputy Director of Polifab

FELLOWSHIPS AND AWARDS

2001 May - August: visiting researcher at the UMR137 CNRS-Thales (Paris), in the group of Albert Fert, Nobel prize for Physics 2007.
2005 July: invited professor at LMOV, CNRS-Université de Versailles (France)
2017 April: “Art in magnetism award”, by IEEE
2018 October: Disruptive Innovation Award – Switch to Product 2018 competition (Deloitte, Bocconi University, Politecnico di Milano)

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

In my career, I have been the tutor of more than 30 graduate students (roughly 2/year), 15 PhD students and 5 post-docs. All former PhD students are still working in research, both in research institutions (S. Brivio - CNR, A. Cattoni - CNRS, L. Baldrati - Institute of Physics Mainz, etc.) and in high-tech companies (M. Monticelli - STM, M. Riva - SAES Getters) where they also coordinate R&D groups. A former PhD student has founded

¹ “Autorizzo il Politecnico di Milano a pubblicare il presente curriculum sul sito WEB di Ateneo, ai fini istituzionali e in ottemperanza al D. Lgs n. 33 del 14 marzo 2013 “Decreto trasparenza” come modificato dal D. Lgs. 97 del 2016”

in Denmark a company in the field of biosensing (M. Donolato - www.blusense-diagnostics.com). Another PhD student (G. Redaelli) has been the head of the IIT start-up on graphene.

TEACHING ACTIVITIES

Since 1999 I give annual courses of classical physics and, since 2006, an advanced course on "Nanomagnetism and Spintronics" at Politecnico di Milano. Furthermore I give lectures in PhD schools (2012, 2014, 2016, 2018 editions of the AIMAGN School of Magnetism; PhD course on Lab on Chip 2010-2012-2019, Politecnico di Milano; School "New frontiers in down-scaled materials and devices", Otranto, 2014).

ORGANISATION OF SCIENTIFIC MEETINGS

2012 – June: Chair of the first edition of the conference SuperFOx (Superconductivity and Functional Oxides, 110 participants) held in Como

2014-16-18: Member of the scientific committee of SuperFOx (Roma, Torino, Salerno; 100 people)

2016: Symposia organizer for the conference JEMS – Glasgow (700 participants)

2017: Member of the scientific committee of FISMAT 2017 – Trieste (1000 participants)

2019: Member of the scientific committee of MAGNONICS 2019 – Brindisi (150 participants)

2024: member of the organizing committee of ICM 2024 (Bologna – 2000 participants)

INSTITUTIONAL RESPONSIBILITIES

1999- : Faculty member of Politecnico di Milano

2019-2021: Director of the cleanroom of Politecnico di Milano (Polifab)

2017- : Delegate of Politecnico di Milano for the participation in the Task Force for Research Infrastructures of Conference of CESAER

2018-2023: Member of the Board of the Joint Research Center “MEMS LAB” between ST Microelectronics and Politecnico di Milano.

REVIEWING ACTIVITIES

2012 – PhD Evaluator, Universidade Tecnica de Lisboa, Portugal

2015 – PhD Evaluator, University of Miano Bicocca and University of Genova, Italy

2016 – Evaluator of scientific proposals for the FUNMAT-FIP call (ICMAB-CSIC), Spain

2017 – PhD Evaluator, Royal Holloway, University of London, UK

2018 – Evaluator of scientific proposals for the French National Research Agency (ANR)

2019 - Reviewer of a CoG ERC project

Reviewer of prestigious scientific journals, (e.g. Nature Nanotechnology, Phys. Rev.Lett., Appl. Phys Lett, Phys. Review B, Lab Chip, Langmuir, ACS Nano).

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2014 – Member of the IEEE Magnetic society

2018 – Vice President of the Italian Magnetic Association (AIMAGN)

2018 – Founding Member of the Italian Network for Micro and Nanofabrication (It-Fab)

2109 - Member of the European Magnetic Association

MAJOR COLLABORATIONS

2001- : Unité Mixte de Physique UMR-137 – Thales (Albert Fert): Spintronics

2002- : ICMAB-CSIC (Josep Fontcuberta): Functional oxides

2004- : CNR-SPIN, Chieti, Italy (Silvia Picozzi): DFT calculations

2010 - : Trinity College of Dublin (Stefano Sanvito): Modelling of spin dependent transport

2008 - : CIC-nanoGune, Donostia, Spain (Paolo vavassori): Micromagnetism, magnetic nanoparticles (

2015- : MIT (Geoffrey Stephen Beach): Spintronics

2010- : ICRM-CNR, Milano, Italy (Marcella Chiari): Biosensors Lab on Chip

2017- : Department of Biomedical and Clinical Sciences “Luigi Sacco”, Milano, Italy (S. Antinori): Diagnostic tests for malaria

2019- : Istituto Superiore di Sanità, Rome, Italy (P. Alano): Diagnostic tests for malaria

2019- : Medical Research Council Unit The Gambia (MRCG), London School of Hygiene and Tropical Medicine (U. D’Alessandro): Diagnostic tests for malaria