

PERSONAL INFORMATION**Silvia Picozzi**

📍 **Department of Materials Science, Univ. Milano-Bicocca**, Via Roberto Cozzi 55, I-20125 Milano

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✉ silvia.picozzi@unimib.it

Sex Female | Date of birth [Redacted] | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

- From October 2024 **Full Professor in Condensed Matter Theory**, Department of Materials Science, Univ. Milano-Bicocca (IT)
- From October 2018 to Sept 2024 **Director of Research**
Consiglio Nazionale delle Ricerche – Istituto SPIN (Public body) – URT Chieti, c/o Univ. “G. D’Annunzio” Chieti-Pescara (IT)
- From April to July 2021 **Interim Institute Director of CNR-SPIN**
Consiglio Nazionale delle Ricerche – Istituto SPIN (Public body) – Sede di Genova
- From Dec. 2010 to Sept. 2018 **“First researcher” (Primo Ricercatore)**
Consiglio Nazionale delle Ricerche – Istituto SPIN (Public body) – Sede L’Aquila (IT)
- From Feb 2009 to Nov. 2010 **“Permanent researcher” (Ricercatore III liv)**
Consiglio Nazionale delle Ricerche – Istituto SPIN (Public body) – Sede L’Aquila (IT)
- From Dec, 2004 to Feb 2009 **Tenure Track**
National Institute of Condensed Matter – INFM – Sede L’Aquila (IT)
- From June 1999 to May 2001 **Postdoc Position**
University of L’Aquila (IT) – supervised by Prof. A. Continenza
- From Jan 1995 to Dec 1995 **Study Fellowship**
National Institute of Condensed Matter – INFM – Sede di Cagliari (Prof. S. Massidda)
- From June 2000 to Dec 2008 **Consultant**
Quantum Materials Design, Inc. (Evanston, IL, USA, CEO: Prof. A. J. Freeman)

EDUCATION AND TRAINING

- 1989-1994 **Master + Bachelor in Physics** Univ. L’Aquila (110/100 cum Laude)
- 1994-1998 **PhD in Materials Science** Univ. Camerino

RESEARCH FELLOWSHIP ABROAD

Visiting Researcher at **Dept. of Phys. and Astronomy, Northwestern University, Evanston, IL, USA**, group of Prof. Arthur J. Freeman (summer 1998, summer 1999, summer 2000, summer 2001), at **Forschungszentrum Juelich, Germany**, in the group of Prof. Dr. Stefan Blügel (Summer 2004, Summer 2006), at **University of California at Santa Barbara, CA (USA)**, in the group of Prof. Nicola A. Spaldin (summer 2007, summer 2008)

PERSONAL SKILLS

Mother tongue(s)	Italian
Other languages	English: C1 level French: B2 level
Digital skills	Software for Electronic Structure Theory (VASP, Quantum Espresso, DMOL, FLAPW, FLEUR, ...), Editing software (Latex, Microsoft Office, ...), Coding languages (Fortran90, C)

ADDITIONAL INFORMATION

VARIOUS
SCIENTIFIC
ACTIVITIES

- **Member of the Scientific Advisory Board of the IFW Dresden**, Germany (Leibniz Institute for Solid State and Materials Research - Mandate: 2022-2026)
- **Co-Editor of Europhys. Lett.** (Mandate: 2018-2021, published by IOP, EDP, SIF)
- **Member of the Editorial Committee of Annual Review of Condensed Matter Physics** (published by Annual Reviews, mandate: 2019- 2023)
- **Associate Editor - Frontiers in Physics** – Cond. Matter Physics (Open Access, EPFL, CH)
- Member of the **Scientific Steering Committee of Partnership for Advanced Computing in Europe (PRACE)**, for a two years mandate (2019-2021)
- Member of the Selection Committee for **Lise Meitner Excellence Program of the Max Planck Society** (September 2020)
- **Working-group Leader of Psi-k Electronic Structure Network** in “Magnetism” (2016-2024)
- Award as one of the most popular **12 ex-students (“Alumni”)** of the **Physics Department of Univ. L’Aquila**, on the occasion of 50th year since the foundation of the Dept
- Member of the Internsiat panel of 41 evaluator experts of **Forschungszentrum Juelich (DE)** Hemholtz Assoc. of German Research Centers for “*Key Information Technologies*” (fall 2017)
- **Referee** of prestigious scientific journals (**Science, Nature, Nature Mater., Nature Phys., Nature Comm, Nature Nano, Adv. Mater, Phys. Rev. Lett., Nanolett., etc.**).
- **Referee of the Gottfried Wilhelm Leibniz Prize 2018** (DFG)
- **Project Reviewer for the following International funding agencies** : US DOE, EU-FP7 and H2020, ERC, US-NSF, DFG, ANR, MIUR, PRACE, ISCR, ...
- Committee member for **Phd Thesis** and for **Habilitations** (LIST, Univ Rennes -CNRS (FR),...)

AWARDS AND MAJOR
PROJECTS

- Grant of the **European Research Council (ERC)**, EU-FP7th, **Starting Grant** (Project *"BISMUTH: Breaking Inversion Symmetry in Magnets: Understand via Theory"*)
- **2019 Fellow of the American Physical Society (APS) in the Division of Materials Physics (DMP)** *"For pioneering contributions to the fundamental understanding of microscopic mechanisms linking magnetic and electric dipolar degrees of freedom, through advanced modeling of ferroelectrics, antiferromagnets, and multiferroics."*

Project title	Funding agency and/or call		Period	Role of SP
<i>BISMUTH-Breaking Inversion Symmetry in Magnets: Understand via Theory</i>	European Research Council (ERC)		May 2008-Apr 2012	Coordinator
<i>BeMAGIC: Magnetoelectrics Beyond</i>	H2020		Sept	Partner

2020	Eu "Marie Curie ITN		2019- Aug 2023	(CNR Coordinator)
TWEET : ToWards fErroElectricity in Two-dimensions	PRIN-2017 Italian Ministry of Research		Aug.2019 – Febr. 2023	National Coordinator
<i>Molecular nanomagnets on metallic and magnetic surfaces for applications in molecular spintronics</i>	Italian Ministry of Research FIRB call		Feb 2012- Feb 2016	Unit Coordinator (Natl. Coord: R Sessoli, UniFi IT)
NFFA (Trieste) : Nanoscience Foundry and Fine Analysis	Agreement CNR-IOM (financed by MIUR) e CNR-SPIN		Nov 2015 – Nov 2023	Responsible for Theory @ NFFA MIUR Infra-structure (Trieste)

BIBLIOGRAPHIC INDICES

H-index (Google Scholar) = **73**, **Citations** (Google Scholar) > 17.300 , Coauthor of >**200** publications

PLENARY, INVITED TALKS AND COLLOQUIA

More than 50 invitations at scientific groups (including Colloquia and Distinguished Lectures) and > 100 at international conferences, including:

- **Plenary speaker** at:

- IOP Conference, Condensed Matter and Quantum Materials – CMQM, St. Andrews (UK), July 2024
- 108th Congress of the Italian Physical Society (**SIF**), Milan, September 2022
- Joint European Magnetic Symposia (**JEMS**), Uppsala (SWE), Sept. 2019
- *Asian-22:Workshop on First-principles Electronic Structure*, Osaka (JP), Oct. 2019
- *32nd Workshop on Recent Developments in Electronic Structure Methods*, UC Merced (USA), held online due to COVID pandemic, June 2020
- **MARVEL Distinguished Lecture**, Ecole Polytechnique Fédérale de Lausanne – EPFL (Lausanne, CH, November 2020, online) – hosted by Prof. N. Marzari
- **Physics and Astronomy Colloquium** , Univ. St. Andrews (Scotland, UK, October 2019) – hosted by Prof. P. D. King

PUBLIC

10 most relevant publications

1. **Avoided metallicity in a hole-doped Mott insulator on a triangular lattice**, C.M. Yim, G.-R. Siemann, S. Stavrić, S. Khim, I. Benedičič, P. A. E. Murgatroyd, T. Antonelli, M. D. Watson, A.P. Mackenzie, S. Picozzi, P. D. C. King, P.Wahl., Nature Communications **15**, 8098 (2024),
2. **Evidence for a single-layer Van der Waals multiferroic**, Q. Song, C. A. Occhialini, E. Ergeçen, B. Ilyas, D. Amoroso, P. Barone, J. Kapeghian, K. Watanabe, T- Taniguchi, A- S. Botana, S. Picozzi, N. Gedik, R. Comin, Nature **602**, 601 (2022),
3. **Room-temperature ferroelectric switching of spin-to-charge conversion in germanium telluride**, S Varotto, et al. Nature Electronics **4** (10), 740-747 (2021)
4. **Giant Biquadratic Exchange in 2D Magnets and Its Role in Stabilizing Ferromagnetism of Monolayers**, JY Ni, et al, Phys. Rev. Lett. **127** (24), 247204 (2021)
5. **Angle, Spin and Depth Resolved Photoelectron Spectroscopy on Quantum Materials**, PD.C.King, S. Picozzi, R. G. Egdell and G. Panaccione, Chemical Reviews **121** (5), 2816-2856 (2021)
6. **γ -BaFe₂O₄: a fresh playground for room temperature multiferroicity** F. Orlandi, D. Delmonte, G. Calestani, E. Cavalli, E. Gilioli, V. V Shvartsman, P. Graziosi, S. Rampino, G.Spaggiari, C. Liu, W. Ren, S. Picozzi, M. Solzi, M. Casappa, F. Mezzadri Nat. Commun. **13**, 7968 (2022)
7. **Spin-chirality driven Multiferroicity in van der Waals monolayers**, C. Liu, W. Ren and S.

Picozzi, Phys Rev. Lett **132**, 086802 (2024)

- 8. Electric control of the giant Rashba effect in bulk GeTe**, D Di Sante, P Barone, R Bertacco, S Picozzi, Adv. Mater. **25** (4), 509-513 (2013)
- 9. Spontaneous skyrmionic lattice from anisotropic symmetric exchange in a Ni-halide monolayer**, D Amoroso, P Barone, S Picozzi, Nature Commun. **11** (1), 1-9 (2020)
- 10. Giant Rashba-type Spin Splitting in Ferroelectric GeTe(111)**, M. Liebmann, et al. Adv. Mater. **28**, 560 (2016)

Personal data

I hereby authorize the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data".

Date February 2nd 2025

Signature: