Curriculum Vitae – Toni Shiroka

Personal Data

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Research Gate:	**https://www.researchgate.net/profile/T-Shiroka**

Highlights of Qualifications

- Long and diversified *research experience* as experimental Physicist. Capable of facing challenging multidisciplinary problems independently or in a team.
- Extensive *know-how* in materials science, low-temperature physics, magnetism, electronics, as well as in NMR/μSR at the post-doctoral level and beyond.
- Active participation in numerous Swiss and European *research projects*, carried out through close and fruitful international *collaborations*.

Professional Employment

2012– *Senior Scientist* at the Swiss Federal Institute of Technology (ETH) Zurich and the Paul Scherrer Institut. Responsible for the nuclear magnetic resonance laboratory at ETH and the multi-purpose surface-muon spectrometer at PSI.

2009–2012 *Research Scientist* at the Swiss Federal Institute of Technology (ETH) Zurich. Research focus on strongly-correlated electron- and low-dimensional systems.

2008–2009 *Scientific Collaborator* at the X-ray Free Electron Laser (X-FEL), PSI. Project coordination, promotion of the scientific case, and conceptual design report (CDR).

2006–2008 *Post-Doctoral Scholar* at Paul Scherrer Institut, Switzerland. Simulation and development of position-sensitive detectors (within the European FP6 JRA8 collaboration).

2000–2006 *Research Assistant* at Physics Department of Parma University. Organic magnetism. New superconductors based on doped fullerene materials.

Research Interests

Topics: Nanophysics, Organic magnetism and superconductivity, Highly-correlated electron materials, Instrument development, Computational physics, etc.

Techniques: Magnetic resonance and high-pressure techniques, Numerical methods, X-ray and neutron diffraction, Vacuum and low-temperature techniques, etc.

Education

1997–2000 *Doctorate Degree* (Ph.D. in Physics). Thesis title: "Spin-polarized Epithermal Muons: Construction of a Pulsed Source with Applications to Thin Films and Nanostructures"; in the framework of the Oxford Slow-Muon Collaboration (Heidelberg – Parma – ISIS).

1992–1996 *Physics Degree* (M.Sc. in Condensed Matter), **110/110 with honors** (summa cum laude). M.Sc. degree awarded by the University of Parma (Italy) with work carried out at the Rutherford Appleton Laboratory, Oxford, UK.

Honors and Awards

2017	ETH VP Award for Innovation and Excellence in Teaching, ETH Zürich.
2016	"Outstanding Reviewer" Certificate from Elsevier B.V.
2001	Prize for "Excellence in Research" awarded at the 5th Biennial International Workshop on Fullerenes and Atomic Clusters, St. Petersburg, Russia.
2000	Prize for the best talk at the VIII NMR Ampère School, Zakopane, Poland.
2000 –	Research results regularly appearing on the annual highlights of ESRF, ISIS, CNR, etc.
1990	Golden Medal for the excellent school and national competition results.
1990	First Prize at the National Physics Competition.

Selected Research Grants

2016	SNF (Swiss National Science Foundation) research grant for the project "Exotic matter and correlated quantum phenomena"
2012	SNF (Swiss National Science Foundation) research grant for the project "Investigating quantum criticality via magnetic resonance"
2009	SNF (Swiss National Science Foundation) research grant for the project "NMR/NQR studies of strongly correlated electron systems"
2000	Post-Doc Fellowship for research on the superconductivity of fullerenes at the Physics Department of Parma University.

Teaching Activity (Teaching statement available upon request)

2002 –	Co-supervisor and thesis advisor of numerous M.Sc. and Ph.D. Physics students.
1999 –	Teaching and tutoring activity with Physics and Engineering students, including courses of advanced laboratory, electromagnetism, quantum physics, etc.

Other Institutional and Professional Activities

2017 –	Reviewer for the Dutch Research Council (NWO) and the Polish Science Centre (NCN).
2016 –	Coordinator, advisory board, and chair session for various conferences and workshops.
2015 –	Member of the ETH Zurich Physics Library commission.
2014 –	Member of the American Chemical Society (ACS), Washington, DC (USA).
2011 –	Member of the Swiss Physical Society (SPS) – Condensed Matter Division.
2006 –	Referee for Nature, Science, Phys. Rev. Lett., Phys. Rev. B, Carbon, etc.
2006	OECD Nuclear Energy Agency Liaison Officer – Parma University.
2004 –	Member of the Electrochemical Society (ECS) – Fullerenes and Nanotubes Division.
2002 –	Member of the International Society for μSR Spectroscopy (ISMS).
1997 –	Member of the Italian Institute for the Physics of Matter (CNR-INFM).

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