



Curriculum Vitae Professor Dr. Roland Wiesendanger



Name: Roland Wiesendanger

Born: 5 October 1961

Academic and Professional Career

- since 1993 Professor for Experimental Physics at Hamburg University, Germany
- 1991 - 1992 Private Lecturer at Basel University, Switzerland
- 1990 Habilitation at the University of Basel, Switzerland
- 1987 Ph.D. at the University of Basel, Switzerland
- 1986 Diploma in Experimental Physics at the University of Basel, Switzerland
- 1981 - 1986 Studies of Physics, Mathematics, and Astronomy at the University of Basel, Switzerland

Project coordination, Membership in collaborative research projects

- since 2009 ERC Advanced Grant "FUORE"
- since 2009 Speaker and Scientific Coordinator of the Hamburg Cluster of Excellence "NANOSPINTRONICS"
- since 2006 Speaker and Scientific Coordinator of the DFG Collaborative Research Center SFB 668 "Magnetism from the Single Atom to the Nanostructure"
- since 2001 Scientific Coordinator of the Interdisciplinary Nanoscience Center Hamburg (INCH)

- 1998 - 2006 Coordinator of the German Center of Competence in Nanotechnology
"Nanoanalytics" (1998-2003) and "HanseNanoTec" (2003-2006) funded by the
German Ministry for Education and Research
- since 1993 Foundation and extension of the Microstructure Advanced Research Center Hamburg
(MARCH) with focus on Low-Temperature Scanning Probe Spectroscopy

Functions in Scientific Societies and Committees

- since 2010 Chairman of the International Committee for Nanoscience and Nanotechnology
(ICN+T)
- 1998 - 2001 Chairman of the Nanoscience and Technology Division of the International Union for
Vacuum Science, Techniques and Applications (IUVSTA)
- 1996 - 2004 Chairman of the Nanoscience and Technology Division of the German Vacuum
Society

Honours and Awarded Memberships

- 2015 Hamburger Wissenschaftspreis
- 2015 Honorary Doctorate of the Technical University Poznan
- 2014 Heinrich Rohrer Grand Medal
- 2013 ERC Advanced Grant
- 2013 Corresponding Member, Polish Academy of Sciences
- 2012 Honorary Professor of Harbin Institute of Technology (HIT), China
- 2010 Nanotechnology Recognition Award of the American Vacuum Society
- 2008 Advanced Grant of the European Research Council (ERC)
- 2008 Elected Member of the German Academy of Science and Technology acadtech
- 2005 Elected Founder Member of the Hamburg Academy of Sciences
- 2003 Philip Morris Research Prize (together with Dr. Matthias Bode)
- 2000 Elected Member of the German National Academy of Sciences Leopoldina
- 1999 Karl Heinz Beckurts Prize
- 1992 Max Auwärter Prize of the Austrian Physical Society
- 1992 Gaede Prize of the German Vacuum Society

Major Scientific Interests

Roland Wiesendanger pioneered the technique of spin-resolved scanning tunnelling microscopy and spectroscopy which allowed the first real-space observation of magnetic structures at the atomic level. Examples have been atomic-scale observations of surface spin structures of ferrimagnets and antiferromagnets as well as the real-space imaging of atomically sharp domain walls in ultra-thin ferromagnetic films and magnetic vortex structures of mesoscopic ferromagnetic islands.

Furthermore, magnetic hysteresis has been observed for the first time on a single-digit nanometer scale and, more recently, even at the level of single magnetic atoms. Roland Wiesendanger also contributed significantly to the development of magnetic force microscopy and to the investigation of low-dimensional electron systems in semiconductors by low-temperature scanning tunnelling spectroscopy in high magnetic fields.