

## **CV of Prof. Dr. Dr. h.c. Roland Wiesendanger**

Dept. of Physics, University of Hamburg

Date of birth: 05.10.1961

Place of birth: Basel, Switzerland

Nationality: German

Present position: University professor for experimental physics, University of Hamburg

**Researcher-ID: P-9726-2016**

URL for web site: [www.nanoscience.de](http://www.nanoscience.de)

### **Professional employment and academic education:**

|            |   |
|------------|---|
| 2003-2012  | Managing Director of the Institute of Applied Physics, Hamburg University     |
| 2003-2004  | Vice-Dean of the Department of Physics at Hamburg University                  |
| Since 1993 | Full Professor (C4) at the University of Hamburg                              |
| 1990-1992  | Private Lecturer at the University of Basel, Switzerland                      |
| 1990       | Habilitation in Experimental Physics at the University of Basel               |
| 1987       | PhD in Experimental Physics at the University of Basel (summa cum laude)      |
| 1986       | Diploma in Exp. Physics at the University of Basel (with highest distinction) |

### **Honours, distinctions, scholarships, awards:**

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|------|--|
| 2019 | Honorary Medal „De Scientia et Humanitate Optime Meritis“ of the Czech Academy of Sciences |
| 2019 | Highly Cited Researcher Award by the Web of Science Group                                  |
| 2018 | 3rd Advanced Grant of the European Research Council (ERC)                                  |
| 2016 | Julius Springer Prize for Applied Physics (together with Prof. Xiang Zhang)                |
| 2016 | Elected Member of the European Academy of Sciences (EURASC)                                |
| 2015 | Hamburg Science Prize of the Hamburg Academy of Sciences                                   |
| 2015 | International Fellow of the Surface Science Society of Japan (SSSJ)                        |
| 2015 | Doctor Honoris Causa of Poznan University of Technology, Poland                            |
| 2014 | Heinrich Rohrer Grand Medal and Prize  |
| 2013 | 2nd Advanced Grant of the European Research Council (ERC)                                  |
| 2013 | Elected Member of the Polish Academy of Sciences   |
| 2012 | Fellow of the American Vacuum Society (AVS)  |
| 2012 | Honorary Professor of Harbin Institute of Technology, China                                |
| 2010 | Nanotechnology Recognition Award of the American Vacuum Society (AVS)                      |
| 2008 | 1st Advanced Grant of the European Research Council (ERC)                                  |
| 2008 | Elected Member of the German Academy of Technical Sciences “acatech”                       |
| 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 Academy of Sciences “Leopoldina”                              |
| 1999 | Karl Heinz Beckurts Prize  |
| 1992 | Max Auwärter Prize   |
| 1992 | Gaede Prize of the German Vacuum Society   |

### **Named Lectures:**

|      |   |
|------|---|
| 2019 | Boltzmann Lecture (University of Vienna, Austria)           |
| 2019 | Nicolás Cabrera Lecture (University of Madrid, Spain)       |
| 2015 | cfaed Distinguished Lecture (TU Dresden, Germany)           |
| 2013 | Distinguished iNANO Lecture (University of Aarhus, Denmark) |
| 2011 | Zernike Lecture (University of Groningen, The Netherlands)  |
| 2007 | Kavli Lecture (Caltech, USA)                                |
| 2001 | Kronig Lecture (TU Delft, The Netherlands)                  |
| 1998 | Kepler Lecture (University of Tübingen, Germany)            |

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### **Selected professional leadership and memberships:**

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|------------|--|
| 2006-2017  | Speaker and Scientific Coordinator of the DFG Collaborative Research Center SFB 668 "Magnetism from the Single Atom to the Nanostructure"  |
| 2013       | Chairman of the Otto Stern Symposium in Hamburg with 7 Nobel Prize winners   |
| 2010-2013  | Chairman of the International Committee for Nanoscience and Nanotechnology   |
| 2009-2012  | Speaker and Scientific Coordinator of the Hamburg Cluster of Excellence "NANOSPINTRONICS"  |
| Since 2001 | Scientific Coordinator of the Interdisciplinary Nanoscience Center Hamburg   |
| 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 |
| 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   |
| 2000       | Chairman of the International NC-AFM and SPS Conferences in Hamburg  |
| 1997       | Chairman of the International STM'97 Conference in Hamburg   |
| Since 1993 | Foundation and extension of the Microstructure Advanced Research Center Hamburg (MARCH)  |

### **Selected editorial activities:**

|              |   |
|--------------|---|
| 2015-2016    | Guest Editor of "New Journal of Physics", Institute of Physics Publishing: Special Issue "Magnetic Skyrmions" (with A. Fert, N. Nagaosa, M. Thorwart) |
| 2006-2010    | Member of the Editorial Board of "Nanotechnology", Institute of Physics Publ.   |
| 2005         | Guest Editor of "Microscopy Research and Technique", Wiley: Special Issue on "Spin-Polarized Scanning Tunnelling Microscopy"                          |
| 1997-present | Co-Editor of the Springer Series in NanoScience and Technology (with P. Avouris, B. Bhushan, D. Bimberg, K. von Klitzing, H. Sakaki)                  |
| 1995-2000    | Member of the Editorial Board of "Applied Physics A", Springer  |
| 1994         | 2 Special Issues on "Scanning Probe Methods in Materials Science", Applied Physics A, Springer  |

### **Since 1986:**

- ca. 680 original research publications, incl. 10 Science, 4 Nature, 38 Nature sister journal articles (Nature Mater., Nature Nanotech., Nature Phys., Nature Commun.), 4 Science Adv., 76 PRL, 129 PRB, etc.
- ca. 30 book chapters,
- author of 2 textbooks,
- editor/co-editor of 9 books and 7 conference proceedings,
- ca. 20 public outreach articles,
- ca. 620 invited / plenary talks at international conferences, universities, research institutions, and industry laboratories,
- member of programme and advisory committees of 140 international conferences,
- member of numerous scientific societies (incl. APS, AVS, DPG, DVG, MRS),
- referee for 45 scientific journals,
- reviewer of proposals for 32 national and international funding agencies,
- **h-index: 104, i10-index: 485, citations: 49.000 (Google Scholar, 23.02.26),**
- **h-index: 83, citations: 31.000 (Web of Science, 23.02.26, excl. books & book chapters).**

## **CV of Prof. Dr. Dr. h.c. Roland Wiesendanger**

### **Major contributions to early careers of excellent researchers / supervisory work:**

Since 1993      Supervision of 140 Diploma/Master students, 100 PhD-students,  
37 PostDocs, and 18 Research Assistants, 8 Habilitations.

Excellent young students and researchers from all over the world have been attracted since many years by Bachelor-level courses (based on my textbook “Einführung in die Struktur der Materie, publisher: Teubner-Verlag 2003, together with Johann Bienlein) as well as advanced Master-level courses in nanoscience (my textbook on Scanning Probe Microscopy and Spectroscopy, publisher: Cambridge University Press 1994, with more than 2.500 citations has become the most widely used and most frequently cited textbook in the field). Furthermore, I am frequently giving lectures at international Summer and Winter Schools all over the world, thereby attracting many bright international students to come to Hamburg University. In Hamburg, I have been involved in 4 Graduate Schools funded by the German Research Foundation (DFG). Currently, I am member of the DFG-funded Cluster of Excellence “Advanced Imaging of Matter” with an Integrated Graduate School. On average, about 30-35 researchers from at least 10 different countries are working in my group on advances in nanoscience and novel applications in nanotechnology, as well as their theoretical understanding.

Several young researchers from my group have received prestigious science awards, e.g. Udo Schwarz (Gaede Prize of the DVG 1999), Mathias Getzlaff (Max Auwärter Prize 2000), André Kubetzka (Prof. Dr. Jürgen Geiger Prize of the DPG 2002), Matthias Bode (Philip Morris Research Prize 2003 and IEEE Distinguished Lecturer Award 2007), Markus Morgenstern (Walter Schottky Prize of the DPG 2004), Oswald Pietzsch (German Nanoscience Prize 2004), Elena Vedmedenko (Hertha Sponer Prize of the DPG 2005), Stefan Heinze (Gaede Prize of the DVG 2006), Uwe Kaiser (ThyssenKrupp PhD Award 2009), Stefan Krause (Prof. Dr. Jürgen Geiger Prize 2010), Matthias Menzel (ECOSS Prize 2011), Lihui Zhou (Chinese Government Award for Outstanding PhD Students Abroad 2011), Anika Schlenhoff (ECOSS Prize 2012), Yasuo Yoshida (Young Scientist Award by the Physical Society of Japan 2012), Alexander Khajetoorians (Gerhard Ertl Young Investigator Award 2012 and Nicholas Kurti European Science Prize 2014), Kirsten von Bergmann (Gaede Prize of the DVG 2013), Yingshuang Fu (National Thousand Talent Program China 2014), Maciej Bazarnik (First degree individual scientific Award of the President of Poznan University of Technology 2015), Sujit Manna (INSPIRE Faculty Award of the Government of India 2016), Niklas Romming (Prof. Dr. Jürgen Geiger Prize of the DPG 2019) and Dr. Lucas Schneider (Heinz-Bethge-Prize for Materials Science 2022 and Prof. Dr. Jürgen Geiger Prize of the DPG 2024).

24 former group members (listed below in alphabetical order) have already become professors all over the world:

Makoto Ashino (Kanazawa Institute of Technology, Japan), Jessica Bickel (Cleveland State University, USA), Matthias Bode (University of Würzburg, Germany), Yingshuang Fu (Huazhong University of Science and Technology, China), Mathias Getzlaff (University of Düsseldorf, Germany), Katsushi Hashimoto (Tohoku University, Sendai, Japan), Stefan Heinze (University of Kiel, Germany), Germar Hoffmann (National Tsing Hua University, Hsinchu, Taiwan), Pin-Jui Hsu (National Tsing Hua University, Hsinchu, Taiwan), Alexander Khajetoorians (Nijmegen, The Netherlands), Roberto Lo Conte (University of Groningen, The Netherlands), Sujit Manna (Indian Institute of Technology Delhi), Giuseppe Maruccio (University of Salento, Lecce, Italy), Tomohiro Matsui (University of Tokyo, Japan), Markus Morgenstern (RWTH Aachen, Germany), Alexandra Palacio-Morales (University Paris-Sud, France), Shuheng Pan (Houston Center for Superconductivity, USA), Anika Schlenhoff (University of Münster, Germany), Udo Schwarz (Yale University, USA), David Serrate (University of Zaragoza, Spain), Nobuki Tezuka (Tohoku University, Sendai, Japan), Dongfei Wang (Beijing Institute of Technology), Shiro Yamazaki (Tokyo Institute of Technology, Japan), Yasuo Yoshida (Kanazawa Institute of Technology, Japan).