Curriculum Vitae

Bernd Rosenow

Institute for Theoretical Physics University of Leipzig Brüderstr. 16 04103 Leipzig phone: +49 341 97 32468 fax: +49 341 97 32548 e-mail: rosenow@physik.uni-leipzig.de

Education

Cologne University Habilitation in Theoretical Physics, 2002 Title: "Interacting Mesoscopic Systems"

Würzburg University Ph.D. in Theoretical Physics, *summa cum laude*, 1998 Dissertation title: "Quantum Phase Transitions in Disordered Systems"

State University of New York at Stony Brook M.A. in Physics, 1993

Professional affiliations and activities

Harvard University, Department of Physics Sabbatical stay, August 2013-March 2014

University of Leipzig, Institute for Theoretical Physics Full Professor (W3), 2010 – present

Max-Planck Institute for Solid State Research Group leader, 2008 – 2010

Harvard University, Department of Physics Visiting scholar, 2005 – 2008

Cologne University, Institute for Theoretical Physics Privatdozent, 2003 - 2010 Research Associate, 1998 –1999, and 2000 – 2005

Harvard University, Department of Physics Post-doctoral fellow, 1999 – 2000 Max-Planck Institute of Nuclear Physics, Heidelberg Post-doctoral fellow, 1997–1998

Awards and Grants

German Research Council, SFB 762, PI in project B6 *Spin-dependent Tunneling in Oxidic Heterostructures*, 2016-2019

German Research Council, Grant Ro2247/8-1 Engineering the coherency of fractional and non-abelian electronic interferometers, 2014-2017

German Research Council, Grant Ro 2247/7-1 Phase Relaxation and Counterflow Dissipation in Bilayer Quantum Hall Systems, 2013/14

Federal Ministry of Research, Grant 01BM0900 Untersuchungen zum topologischen Quanten-Computing (TQC), 2009-2013

Heisenberg Fellowship, German Research Council, 2005-2008 and 2008-2010 German Research Council, *Disorder and quantum fluctuation in effective field theories of highly correlated materials*, project D4 in SFB 608 together with T. Nattermann

German Research Council, "Reduced Dimensionality, Disorder, and Interactions", Grant Ro 2247/1-1, 1999-2000

"Röntgenpreis der Fakultät für Physik", Universität Würzburg, 2000 "Unterfränkische Gedenkjahrsstiftung" Dissertation Award, 2000 German National Academic Foundation, Dissertation Scholarship, 1995-1997 German National Academic Foundation, Scholarship, 1992-1994 Bavarian Government, Scholarship for Highly Gifted Students, 1988-1994

Conference Organization

Minisymposium Unconventional Superconductivity, University of Leipzig, September 30 - October 1, 2015, supported by graduate school BuildMoNa

Conference on *Non-equilibrium Dynamics of Low-Dimensional Electronic Systems*, University of Leipzig, January 12-15, 2015. More than 50 international participants, supported by ICAM. Co-organized with Yuval Gefen and Natan Andrei.

Minisymposium *Quantum Coherence in Nanostructures*, University of Leipzig, October 4-5, 2012, supported by graduate school BuildMoNa

Invited Talks at International Conferences

Workshop Majorana 2016, Schloss Waldthausen, February 2016.

Winter School *Topological Quantum Matter*, Harish-Chandra Research Institute at Allahabad, February 2015.

Workshop *Topological Phenomena in Low-Dimensional Quantum Systems*, University of Oslo, December 2014.

Workshop *Topology and Entanglement in Correlated Quantum Systems*, Max-Planck Institute for Complex Systems Dresden, July 2014.

Conference Emergent Phenomena in Quantum Hall Systems 5, Weizmann Institute of Science, July 2014.

Workshop *Topological matter, Superconductivity and Majorana*, Institute for Advanced Study, Hong Kong university, January 2014.

Workshop Disorder, Dynamics, Frustration and Topology in Quantum Condensed Matter, Aspen Center for Physics, June 2013.

Workshop Workshop on Interferometry and Interactions in Non-Equilibrium Meso- andNanoSystems, ICTP Trieste, April 2013.

Workshop The Science of Nanostructures: New Frontiers in the Physics of Quantum Dots, Chernogolovka, September 2012.

Workshop *Quantum Transport in Correlated Systems*, KIAS Soul, August 2012. Conference *Quantum Matter from the Nano- to the Macroscale*, Max-Planck Institute for Complex Systems Dresden, July 2012.

Workshop Advanced Working Group on p-wave states of matter and the related quest for non-Abelian quasiparticles, Royal Holloway, University of London, March 2012.

Workshop *Quantum Information and Condensed Matter Physics*, NUI Maynooth, September 2011.

Workshop on *Low Dimensional Topological Matter*, Aspen Center for Physics, July 2010.

Conference *Correlated Phenomena in Low-Dimensional Systems*, Max-Planck Institute for Complex Systems Dresden, July 2010.

Conference *50 years of the Aharonov-Bohm Effect*, Tel Aviv University, October 2009.

Dutch national condensed matter gathering in Twente, October 2008.

Microsoft Project Q meeting, University of California at Santa Barbara, June 2008.

APS March Meeting New Orleans, Invited Talk, March 2008.

Conference on *Disorder, Fluctuations, and Universality*, Cologne University, January 2008.

Microsoft Project Q meeting, University of California at Santa Barbara, June 2007.

Workshop *Spin and Charge Flow in Nanostructures*, Centre for Advanced Study of the Norwegian Academy of Science and Letters, May 2007.

DPG Summer School on Dynamics of Socio-Economic Systems: A Physics Perspective, Lecture Series, Physikzentrum Bad Honnef, September 2005

Third Nikkei Econophysics Symposium, Tokyo, November 2004

Workshop on Volatility of financial markets, Lorentz Center, Leyden University, October 2004.

First International Winter School on Physics of Socio-Economic Systems, Lecture Series, University of Konstanz, February 2004. DAAD Summerschool on Traffic and Econophysics, Lecture Series, August 2003.

Nikkei Symposium on Application of Econophysics, Tokyo, November 2002. International Econophysics Conference, Bali, August 2002

Workshop on Mesoscopic Physics and Electron Interaction, ICTP Trieste, July 2002.

Conference "Horizons in Complex Systems", Messina (Italy), December 2001. Conference "Empirical Science of Financial Fluctuations", Tokyo, November 2000.

Jyväskylä summer school, lecture series, Jyväskylä (Finland), August 2000. March Meeting of the American Physical Society, invited talk, March 2000.

Extended Research Workshop on Disorder, Chaos and Interaction in Mesoscopic Systems, ICTP Trieste, August 1998.

SNS/Forum 1998 Workshop "Semiconductor Nanostructures", Scuola Normale Superiore Pisa, June 1998.

Teaching Experience

Summer Term 2016: Quantum Mechanics, Mathematical Methods II

Winter Term 2015/16: Quantum Field Theory for Many-Particle Systems, Mathematical Methods I

Summer Term 2015: Quantum Mechanics, Mathematical Methods II

Winter Term 2014/15: Mesoscopic Physics, Mathematical Methods I, Holographic Methods in Condensed Matter Theory

Summer Term 2014: Quantum Mechanics, Mathematical Methods II, Quantum Field Theory for Many-Particle Systems

Summer Term 2013: Quantum Field Theory for Many-Particle Systems

Winter Term 2012/13 Quantum Mechanics

Summer Term 2012: Advanced Statistical Mechanics

Winter Term 2011/12: Quantum Field Theory for Many-Particle Systems

Summer Term 2011: Statistical Mechanics

Winter Term 2010/11: Quantum Mechanics

Summer Term 2010: Quantum Field Theory for Many-Particle Systems