

Brief Curriculum Vitae of Christian Schönenberger

Fields of Research

Nanoelectronics, Mesoscopic Physics, Molecular Electronics, Spintronics, Quantum Coherence in Nanostructures, Nanolithography, Low-Temperature Physics, Quantum-Dot and Nanowire Physics, Carbon Nanotubes, Shot-Noise and Charge-Fluctuation Phenomena.

Professional Experience

1978-1980 Assistant (Prof. K. Dressler) at the Dep. of Phys. Chem., ETHZ, CH.
1986-1990 Postgrad Fellow, IBM Research Lab., Rüschlikon, CH.
1990-1992 Postdoctoral fellow at Philips Research, Eindhoven, NL.
1993-1995 Permanent Research Staff Member at Philips Research, Eindhoven, NL.
since 1995 Full Chair in Experimental Physics at the University of Basel, CH
since 2006 Director of the Swiss National Center of Nanoscience

Awards, Chairs, and Visiting Appointments

1990 PhD medal from the ETHZ.
1991 Swiss Physical Society Price
1994 Profil-II award of the Swiss National Science Foundation

Organizational Experience

Chairman of several schools on nanoscience in Switzerland.
Vicedirector of the Swiss National Center on Nanoscience and Technology and since 2005 director of the Swiss Nanoscience Institute at the University of Basel.

Some Recent Selected Publications 2001-2006

- [1] M. Krüger, M. Buitelaar, T. Nussbaumer, C. Schönenberger and L. Forró, *The Electrochemical Nanotube Field-Effect Transistor*, Appl. Phys. Lett. **78** 1291 (2001).
- [2] S. Oberholzer, E. V. Sukhorukov, C. Strunk, C. Schönenberger, T. Heinzel, M. Holland, *Shot Noise by Quantum Scattering in Chaotic Cavities*, Phys. Rev. Lett. **86** 2114 (2001).
- [3] A. Bachtold, M. de Jonge, K. Grove-Rasmussen, P. L. McEuen, M. Buitelaar, and C. Schönenberger, *Suppression of Tunneling into Multi-Wall Carbon Nanotubes*, Phys. Rev. Lett. **87** 166801 (2001).
- [4] S. Oberholzer, E. V. Sukhorukov, and C. Schönenberger, *Crossover between Classical and Quantum Shot Noise in Chaotic Cavities*, Nature **415**, 765 (2002).
- [5] M. R. Buitelaar, T. Nussbaumer and C. Schönenberger, *Quantum Dot in the Kondo Regime coupled to Superconductors*, Phys. Rev. Lett. **89** 256801 (2002).
- [6] M. R. Buitelaar, W. Belzig, T. Nussbaumer, B. Babic, C. Bruder, and C. Schönenberger, *Multiple Andreev Reflection in a Carbon Nanotube Quantum Dot*, Phys. Rev. Lett. **91**, 057005 (2003).
- [7] C. Beenakker and C. Schönenberger, *Quantum Shot Noise*, Physics Today, **56** 37-42 (2003).
- [8] Bakir Babic, Takis Kontos and Christian Schönenberger, *Kondo effect in carbon nanotubes at half filling*, Phys. Rev. **B 70** 235419 (2004).
- [9] L. Grüter, M. T. Gonzalez, R. Huber, M. Calame, and C. Schönenberger, *Electrical conductance of atomic contacts in liquid environments*, Small **1** 1067 (2005).
- [10] S. Sahoo, T. Kontos, J. Furer, C. Hoffmann, M. Gräber, A. Cottet, and C. Schönenberger, *Electric field control of spin transport*, Nature Physics **1**, 99-102 (2005).
- [11] S. Oberholzer, E. Bieri, C. Schönenberger, M. Giovannini, and J. Faist, *Positive cross-correlations in a normal-conducting fermionic beam-splitter*, Phys. Rev. Lett. **96**, 046804 (2006).