

B3.3 (G. Schön / A. Shnirman)

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- [B3.3:63] * P. Kotetes, A. Shnirman, and G. Schön, *Engineering and manipulating topological qubits in 1D quantum wires*, J. Korean Phys. Soc. **62**, 1558 (2013)
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Invited Talks at International Conference

G. Schön, *On Decoherence in Solid State Qubits*, Frontiers in Quantum Nanoscience, A Sir Mark Oliphant and PITP Conference, Noosa, Australia, January 22 - 26, 2006

A. Shnirman, *Decoherence from $1/f$ noise*, Mesoscopic Superconductivity and Spintronics (MS+S2006), NTT Atsugi R&D Center, Atsugi, Japan, February 27-March 2, 2006

A. Shnirman, *Coupled superconducting qubits: A theoretical overview*, APS March Meeting, Baltimore, USA, March 13-17, 2006

G. Schön, *Noise and Decoherence* (2 lectures), The 2nd Capri Spring School on Transport in Nanostructures, Capri, Italy, April 2 - 9, 2006

G. Schön, *Decoherence and Relaxation in Quantum Devices*, 366. WE-Heraeus-Seminar 'Qubits and Macroscopic Quantum Coherence: From Superconducting Devices to Ultra-cold Gases', Bad Honnef, May 7 - 11, 2006

G. Schön, *Decoherence and Relaxation in Solid State Qubits*, Vth Intern. Workshop on Nanotechnology: "Macroscopic Quantum Coherence and Computing" in Mesoscopic Systems, Naples, Italy, June 12 - 15, 2006

G. Schön, *Decoherence and Relaxation of Spin Qubits*, Symposium on 'Quantum Information Processing and Quantum Computation', Chalmers, Sweden, October 23 – 24, 2006

G. Schön, *Nanoelectronic Quantum Information Devices*, Japan-Germany (JST and DFG) Joint Workshop 2006 on 'Nanoelectronics', Tokyo, Japan, October 30 – November 1, 2006

A. Shnirman, *Single-qubit lasing and cooling at the Rabi frequency*, Quantum Electromechanical Systems "QEM-2", Morrow Bay, USA, December 13-15, 2006

G. Schön, *Solid-state Qubits and Decoherence*, Symposium for Vinay Ambegaokar, Cornell University, 16 June 2007

G. Schön, *Josephson Qubits and Decoherence*, Internat. WE-Heraeus Summer School "Interfaces between Physics and Computer Science", Jacobs University Bremen, June 10 - 24, 2007

G. Schön, *Quantum Engineering Meets Optics*, "When Matter Meets Information", Perimeter Institute, Waterloo Canada, June 25-29, 2007

A. Shnirman, *Single-qubit lasing and cooling at the Rabi frequency; protected qubits with Josephson junctions*, Workshop on Solid State Quantum Information Systems, Copenhagen, Denmark, June 25 - July 6, 2007

P. San-Jose, *Spin qubits*, Bad Herrenalb CFN Summer School on Nanoelectronics, Bad Herrenalb, Germany, August 28-31, 2007

A. Shnirman, *Dissipation in Josephson Qubits*, DPG Physics School "Quantum Information and Quantum Simulation", Bad Honnef, Germany, September 16 - 21, 2007

G. Schön, *Single-Qubit Lasing and Cooling at the Rabi Frequency*, Int. Workshop "Nanoscale Transport: Quantum Noise, Josephson Junctions, and Molecular Electronics", Freiburg, November 1-3, 2007

G. Schön, *Decoherence and Relaxation in Driven Circuit QED Systems*, Workshop "Decoherence in Superconducting Qubits", Berkeley, CA, December 6-7, 2007

A. Shnirman, *Decoherence in Josephson and Spin Qubits*, Lecture course (4 lectures), School on Low Dimensional Nanoscopic Systems, HRI, Allahabad, India, January 28 - February 9, 2008

G. Schön, *Decoherence and Relaxation in Driven Circuit QED Systems*, Workshop "Interaction and Interference in Nanoscopic Transport", MPI Dresden, February 18-22 2008

A. Shnirman, *Lasing and Cooling with Josephson Qubits*, ULTI2008, Symposium on Quantum Phenomena and Devices at Low Temperatures, Espoo, Finland, March 28 – 30, 2008

A. Shnirman, *Lasing and cooling with superconducting qubits*, International Symposium "Nanoelectronics and Quantum Transport", Universität Karlsruhe, April 18-19, 2008

G. Schön, *Dissipation in driven circuit QED Systems*, Workshop "Quantum Phenomena and Information: from Atomic to Mesoscopic Systems", ICTP Trieste, May 5-16, 2008

G. Schön, *Decoherence and Relaxation in Driven Circuit QED Systems*, Workshop "Quantum Coherence and Controllability at the Mesoscale", San Sebastian, Spain, May 12-23, 2008

G. Schön, *Decoherence and Relaxation in Driven Circuit QED Systems*, 2nd Int. Workshop on Solid-State Quantum Computing, Ntl. Taiwan Univ., Taipei, Taiwan, June 25 – 28, 2008

A. Shnirman, *Lasing and Cooling with Josephson Qubits*, NanoPeter2008, ARW "Fundamentals of Electronic Nanosystems", St. Petersburg, Russia, June 28 - July 4, 2008

G. Schön, *Decoherence and Relaxation in Driven Circuit QED Systems*, 4th Asia Pacific Conference on Quantum Information Science, Cairns, Australia, June 29 - July 5, 2008

V. Brosco, *Phase diffusion in single qubit lasers*, Int. Conf. on "Frontiers of Quantum and Mesoscopic Thermodynamics", Prague, Czech Republic, July 28 - August 2, 2008

V. Brosco, *Phase diffusion in single qubit lasers*, Int. Conf. on "Quantum Dynamics in Dots and Junctions: Coherent Solid State Systems", Riva del Garda, Italy, October 5-10, 2008

A. Shnirman, *Geometric phases in semiconductor spin qubits: Manipulations and decoherence*, on "Quantum Dynamics in Dots and Junctions: Coherent Solid State Systems", Riva del Garda, Italy, October 5-10, 2008.

G. Schön, *Dissipation in circuit quantum electrodynamics: Lasing and cooling of a low-frequency oscillator*, Int. Conf. on "Quantum Dynamics in Dots and Junctions: Coherent Solid State Systems", Riva del Garda, Italy, October 5-10, 2008

A. Shnirman, *Lasing and Cooling with Josephson Qubits*, Workshop on "Solid state quantum information", Pisa, Italy, December 3 - 6, 2008

G. Schön, *Lasing and Cooling in Circuit QED*, Int. Workshop On Solid State Quantum Information Processing, Herrsching, Germany, 1-3 July 2009

G. Schön, *Lasing and Cooling in Circuit Quantum Electrodynamics*, Int. Symposium on Quantum Materials, SFB 508 Univ. Hamburg, Germany, 4-5 June 2009

G. Schön, *Single- and Few-Qubit Lasing in Circuit QED*, Nobel Symposium 2009: Qubits for Future Quantum Computers, Göteborg, Sweden, 25-28 May 2009

G. Schön, *Lasing, Cooling, and Nonequilibrium Photon States in Circuit QED*, APS March Meeting, Pittsburgh, USA, 16-20 March 2009

A. Shnirman, *Geometric manipulations, dephasing, and pumping of spin*, Workshop "50 years of the Aharonov-Bohm effect", Tel Aviv, Israel, October 10 - 14, 2009

S. André, *Single-qubit lasing in circuit QED*, SOLID kickoff workshop, Bilbao, Spain, Febr. 9-11, 2010

C. Müller, *Dynamics of strongly coupled qubit-fluctuator systems*, SOLID kickoff workshop, Bilbao, Spain, Febr. 9-11, 2010

J. Cole, *Decoherence Probe Microscopy*, Canadian Institute for Advanced Research: Quantum Information Processing Meeting, Seefeld, Austria, May 8-12, 2010

A. Shnirman, *Rabi spectroscopy of two-level systems in Josephson qubits*, Ruperto-Carola-Symposium "Hybrid Quantum Systems, New Perspectives on Quantum State Control", Heidelberg, May 12-15, 2010.

G. Schön, *Circuit QED*, ITN Meeting on "Nanoelectronics - Concepts, Theory and Modeling", Jacobs University Bremen, May 17- 21, 2010.

S. André, *Single-qubit lasing in the strong coupling regime*, Nano-CTM Annual Network Meeting, Malvern, United Kingdom, Sept. 16-17, 2010

C. Müller, *Evaluation of defect models for superconducting phase qubits*, SOLID fall workshop "Interfacing Solid State QIP Systems", Munich, October 7-8, 2010

J.H. Cole, *Decoherence Probe Microscopy*, SOLID fall workshop "Interfacing Solid State QIP Systems", Munich, October 7-8, 2010

A. Shnirman, *Decoherence in adiabatic quantum evolution: application to Cooper pair pumping*, conference "Arrow of time and the problem of decoherence in closed solid state quantum system", Institute Henri Poincaré, Paris, France, October 11-15, 2010

G. Schön, *Lasing and Transport in Circuit QED*, Int. Conference on Quantum Technologies, Moscow, Russia, July 13-17, 2011

G. Schön, *Lasing and Transport in a Quantum Dot - Resonator Circuit*, Conference on Frontiers of Quantum and Mesoscopic Thermodynamics, Prague, Czech Republic, July 25-30, 2011

G. Schön, *Quantum State Engineering with Josephson Junctions*, 26th Int. Conference on Low Temperature Physics, Beijing, China, August 10-17, 2011

P. Kotetes, *Engineering and manipulating topological qubits in 1D quantum wires*, International Conference of Magnetism 2012, Busan (S. Korea), 8-13 July 2012

A. Shnirman, *Non-adiabatic effects in Majorana qubit manipulations*, BMBF Workshop "Topological Materials for Nanoelectronics", Stuttgart, Germany, October 08 - 10, 2012.

P. Kotetes, *Spinful Majorana fermions and magnetoelectricity in junctions of 1D quantum wire – superconductor heterostructures*, Nanoelectronics meeting, Cargèse (France), 21-27 October 2012

G. Schön, *Quantum State Engineering with Qubits*, Nanoelectronics: Concepts, Theory and Modeling, workshop on Quantum Technology, North Uist, Scotland, 20-23 May 2013

G. Schön, *Lasing and Transport in Superconducting/Semiconducting Circuit QED*, Fundamental Optical Processes in Semiconductors (FOPS)-2013, Kodiak Island, USA, August 12 - 16, 2013

G. Schön, *Dissipation in Quantum Mechanics, Relaxation, and Decoherence*, International Doctoral Training Session: Frontiers of Condensed Matter: Nanosciences and Energy, Ecole de Physique des Houches, Sept. 2-13, 2013

G. Schön, *Lasing and Transport in Superconducting/Semiconducting Circuit QED*, 6th Intern. Workshop on Solid State Quantum Computing, Beijing, China, October 19 - 21, 2013