

B3.5 (A.V. Ustinov)

- [B3.5:1] * J. Lisenfeld, C. Mueller, J.H. Cole, A. Lukashenko, A. Shnirman, and A.V. Ustinov, *Rabi spectroscopy of a qubit-fluctuator system*, [Phys. Rev. B **81**, 100511\(R\) \(2010\)](#)
- [B3.5:2] * P. Bushev, C. Mueller, J. Lisenfeld, J.H. Cole, A. Lukashenko, A. Shnirman, and A.V. Ustinov, *Hybrid quantum system surveyed using multi-photon spectroscopy*, [Phys. Rev. B **82**, 134530 \(2010\)](#)
- [B3.5:3] * J.H. Cole, C. Mueller, P. Bushev, G.J. Grabovskij, J. Lisenfeld, A. Lukashenko, A.V. Ustinov, and A. Shnirman, *Quantitative evaluation of defect-models in superconducting phase qubits*, [Appl. Phys. Lett. **97**, 252501 \(2010\)](#)
- [B3.5:4] * J. Lisenfeld, C. Mueller, J.H. Cole, P. Bushev, A. Lukashenko, A. Shnirman, and A.V. Ustinov, *Measuring the temperature dependence of individual two-level systems by direct coherent control*, [Phys. Rev. Lett. **105**, 230504 \(2010\)](#)
- [B3.5:5] P. Bushev, A.K. Feofanov, H. Rotzinger, I. Protopopov, J.H. Cole, C.M. Wilson, G. Fischer, A. Lukashenko, and A.V. Ustinov, *Ultralow-power spectroscopy of a rare-earth spin ensemble using a superconducting resonator*, [Phys. Rev. B **84**, 060501\(R\) \(2011\)](#)
- [B3.5:6] G.J. Grabovskij, P. Bushev, J.H. Cole, C. Mueller, J. Lisenfeld, A. Lukashenko, and A.V. Ustinov, *Entangling microscopic defects via a macroscopic quantum shuttle*, [New J. Phys. **13**, 063015 \(2011\)](#)
- [B3.5:7] * G.J. Grabovskij, T. Peichel, J. Lisenfeld, G. Weiss, and A.V. Ustinov, *Strain tuning of individual atomic tunneling systems detected by a superconducting qubit*, [Science **338**, 232 \(2012\)](#)
- [B3.5:8] S. Probst, H. Rotzinger, S. Wuensch, P. Jung, M. Jerger, M. Siegel, A.V. Ustinov, and P.A. Bushev, *Anisotropic rare-earth spin ensemble strongly coupled to a superconducting resonator*, [Phys. Rev. Lett. **110**, 157001 \(2013\)](#)

Invited Talks at International Conferences

A.V. Ustinov, *Entangling a Josephson macro-atom with a microscopic atomic dipole*, Condensed Matter and Materials Physics CMMP09, University of Warwick, UK, 15 – 17 December 2009 (invited talk)

A.V. Ustinov, *Microwave spectroscopy of defects in tunnel barriers of Josephson junctions*, Symp. on Nanophysics and Nanoelectronics, Nizhnij Novgorod, Russia, 15-19 March 2010 (invited talk)

A.V. Ustinov, *Josephson junction tools to manipulate microscopic two-level systems*, Int. Solid State Quantum Information Workshop SOLID/EuroSQIP, Bilbao, Spain, 9-11 February 2010 (invited talk)

A.V. Ustinov, *Using a Josephson junction for manipulating microscopic atomic dipoles*, Weizmann Institute Scientific Retreat, Galilee, Israel, 24-27 February 2010 (invited talk)

A.V. Ustinov, *Microwave spectroscopy of two-level defects in tunnel barriers of Josephson junctions*, The 7th International Symposium on Intrinsic Josephson Effects and Plasma Oscillations in High-Tc Superconductors, Hiroasaki, Japan, 29 April - 2 May 2010 (invited talk)

A.V. Ustinov, *One-by-one manipulation of microscopic two-level systems*, Advanced Research Workshop “Fundamentals of electronic nanosystems” NanoPiter 2010, St. Petersburg, Russia, 26 June – 1 July 2010 (invited talk)

A.V. Ustinov, *Spectroscopy of two-level defects in tunnel barriers of Josephson junctions*, Int. Conf. on Superconductivity and Magnetism 2010, Paestum, Italy, 5 – 11 September 2010 (invited talk)

A.V. Ustinov, *Exploring two-level defects in amorphous oxide barriers of Josephson junctions*, International Workshop on Complex Phenomena in Superconductivity and Magnetism, Hardangerfjord, Norway, August 29 - September 3, 2011 (invited talk)

A.V. Ustinov, *One-by-one manipulation of microscopic two-level systems*, March Meeting of Mediterranean Institute of Fundamental Physics MIFP, Marino, Italy, March 23-25, 2012 (invited talk)

A.V. Ustinov, *Spectroscopy and coherent manipulation of two-level defects in disordered solid*, Advanced Research Workshop Meso-2012 “Non-equilibrium and coherent phenomena at nanoscale”, Chernogolovka, Russia, 17-23 June, 2012 (invited talk)

A. V. Ustinov, *Control and manipulation of coherent two-level defects in superconducting qubits*, 2nd International Conference on Quantum Technologies, Moscow, Russia, July 20-24, 2013 (invited talk)