

B3.4 (M. Siegel / A.V. Ustinov)

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- [B3.4:2] ‡ S. Wünsch, T. Ortlepp, M. Schubert, E. Crocoll, G. Wende, H.-G. Meyer, F.H. Uhlmann, and M. Siegel, *Design and Development of cryogenic semiconductor amplifiers as interface between RSFQ circuits*, *Cryogenics* **49**, 652 (2009)
- [B3.4:3] ‡ T. Ortlepp, S. Wuensch, M. Schubert, P. Febvre, B. Ebert, J. Kunert, E. Crocoll, H.-G. Meyer, M. Siegel, and F.H. Uhlmann, *Superconductor-to-semiconductor interface circuit for high data rates*, [IEEE Trans. Appl. Supercond. **19**, 28 \(2009\)](#)
- [B3.4:4] G. Hammer, S. Wünsch, M. Roesch, K. Ilin, E. Crocoll, and M. Siegel, *Coupling of Microwave Resonators to Feed Lines*, [IEEE Trans. Appl. Supercond. **19**, 565 \(2009\)](#)
- [B3.4:5] T. Wirth, J. Lisenfeld, A. Lukashenko, and A.V. Ustinov, *Microwave readout scheme for a josephson phase qubit*, [Appl. Phys. Lett. **97**, 262508 \(2010\)](#)
- [B3.4:6] ‡ G. Oelsner, S.H.W. van der Ploeg, P. Macha, U. Hübner, D. Born, E. Il'ichev, H.-G. Meyer, M. Grajcar, S. Wünsch, M. Siegel, A.N. Omelyanchoul, and O. Astafiev, *Weak continuous monitoring of a flux qubit using coplanar waveguide resonator*, [Phys. Rev. B **81**, 172505 \(2010\)](#)
- [B3.4:7] S. Wünsch, D. Bruch, E. Crocoll, A. Leuther, I. Kallfass, and M. Siegel, *Development of monolithic microwave integrated amplifiers as readout for detectors at 4.2 K*, [IEEE Trans. Appl. Supercond. **21**, 302 \(2011\)](#)
- [B3.4:8] S. Wünsch, G. Hammer, T. Kappler, F. Geuppert, and M. Siegel, *Investigation and optimization of LEKID coupling structures and multi-pixel arrays at 4.2 K*, [IEEE Trans. Appl. Supercond. **21**, 752 \(2011\)](#)
- [B3.4:9] M. Jerger, S. Poletto, P. Macha, U. Huebner, A. Lukashenko, E. Il'ichev, A. V. Ustinov, *Readout of a Qubit Array via a Single Transmission Line*, [Europhys. Lett. **96**, 40012 \(2011\)](#).
- [B3.4:10] ‡* C. Kurter, P. Tassin, L. Zhang, T. Koschny, A.P. Zhuravel, A.V. Ustinov, S.M. Anlage, and C.M. Soukoulis, *Classical Analogue of Electromagnetically Induced Transparency with a Metal-Superconductor Hybrid Metamaterial*, [Phys. Rev. Lett. **107**, 043901 \(2011\)](#)
- [B3.4:11] ‡ C. Kurter, A.P. Zhuravel, A.V. Ustinov, and S.M. Anlage, *Microscopic examination of hot spots giving rise to nonlinearity in superconducting resonators*, [Phys. Rev. B **84**, 104515 \(2011\)](#)
- [B3.4:12] ‡ C. Kurter, P. Tassin, A.P. Zhuravel, L. Zhang, T. Koschny, A.V. Ustinov, C.M. Soukoulis, and S.M. Anlage, *Switching nonlinearity in a superconductor-enhanced metamaterial*, [Appl. Phys. Lett. **100**, 121906 \(2012\)](#)
- [B3.4:13] ‡ A.P. Zhuravel, C. Kurter, A.V. Ustinov, and S.M. Anlage, *Unconventional rf photoresponse from a superconducting spiral resonator*, [Phys. Rev. B **85**, 134535 \(2012\)](#)
- [B3.4:14] M. Jerger, S. Poletto, P. Macha, U. Huebner, E. Il'ichev, and A.V. Ustinov, *Frequency division multiplexing readout and simultaneous manipulation of an array of flux qubits*, [Appl. Phys. Lett. **101**, 042604 \(2012\)](#)
- [B3.4:15] P. Jung, S. Butz, S.V. Shitov, and A.V. Ustinov, *Low-loss tunable metamaterials using superconducting circuits with Josephson junctions*, [Appl. Phys. Lett. **102**, 062601 \(2013\)](#)

- [B3.4:16] * K.G. Fedorov, A.V. Shcherbakova, R. Schäfer, and A.V. Ustinov, *Josephson vortex coupled to a flux qubit*, [Appl. Phys. Lett. **102**, 132602 \(2013\)](#)
- [B3.4:17] S. Butz, P. Jung, L.V. Filippenko, V.P. Koshelets, and A.V. Ustinov, *A one-dimensional tunable magnetic metamaterial*, [Opt. Express **21**, 22540 \(2013\)](#)
- [B3.4:18] E.A. Ovchinnikova, S. Butz, P. Jung, V.P. Koshelets, L.V. Filippenko, A.S. Averkin, S.V. Shitov, and A.V. Ustinov. *Design and experimental study of superconducting left-handed transmission lines with tunable dispersion*, [Supercond. Sci. Techn. **26**, 114003 \(2013\)](#)

Invited Talks at International Conferences

- A.V. Ustinov, *Microwave games with Josephson junctions*, 429. WE-Heraeus-Seminar "Microwaves for Condensed Matter Physics", 5 – 8 April 2009 at the Physikzentrum Bad Honnef, Germany (invited talk)
- J. Lisenfeld, *Superconducting Quantum Bits*, CFN Summer School on Nano-Electronics, 4 – 7 September 2009, Bad Herrenalb, Germany (invited talk)
- A.V. Ustinov, *Josephson Plasmons in Superconducting Metamaterials*, Int. Conference "NanoMeta 2011 - the 3rd International Topical Meeting on Nanophotonics and Metamaterials", Seefeld, Austria, 3-6 January, 2011 (invited talk)
- A.V. Ustinov, *Scaling-up architectures for superconducting quantum circuits*, Int. Humboldt Kolleg and Workshop Nano-2011, Kishinev, Moldova, 6-9 October, 2011 (invited talk)
- A.V. Ustinov, *Superconducting artificial atoms as building blocks for quantum metamaterials*, invited talk at the Int. Conference "Metamaterials 2011", Barcelona, Spain, October 10-15, 2011 (invited talk)
- A. V. Ustinov, *Experimental program on superconducting metamaterials*, Int. Workshop "Superconducting metamaterials", Chernogolovka, Russia, 8-10 December 2011 (invited talk)
- A. V. Ustinov, *Superconducting Metamaterials*, International Conference "Days on Diffraction-2012" St. Petersburg, Russia, May 28 – June 1, 2012 (invited plenary talk)
- A.V. Ustinov, *Manipulation and readout of hybrid multi-qubit circuits*, Grenoble, France, EU-Project SOLID workshop, 20-23 February, 2012 (keynote talk)
- A.V. Ustinov, *Tunable superconducting metamaterials employing Josephson junctions*, META'13: 4th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Sharjah, United Arab Emirates, 18-22 March, 2013 (invited keynote talk)
- A. V. Ustinov, *Superconducting Metamaterials*, International Conference "Days on Diffraction-2013" St. Petersburg, Russia, May 27-31, 2013 (invited talk)
- A. V. Ustinov, *Fluxon readout of a superconducting qubit*, Mesoscopic Structures - Fundamentals and Applications: 2nd International Conference on Nanophysics and Nanoelectronics, Novosibirsk, Russia, June 22-28, 2013 (invited talk)