**Dr. Aleksandr Verevkin**

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**Education**

1991 Ph.D. in Physics, Moscow State Pedagogical University, Moscow, Russia

1980 MS. in Physics, Novosibirsk State University, Novosibirsk, Russia

**Employment**

Feb. 2012 – present time: Head Expert, SCONTEL LLC. [www.scontel.ru](http://www.scontel.ru), Moscow, Russia

Jan. 2005 – Jul. 2009: Assistant Professor, Department of Electrical Engineering, University at Buffalo, State University of New York (SUNY), NY USA

Sep. 2000 – Dec. 2004: Scientist, Department of Electrical and Computer Engineering, University of Rochester, NY USA

Mar. 1999 – Sep. 2000: Scientist, Department of Applied Physics, Yale University, CT USA

Jun. 1998 – Jan. 1999: Visiting Scientist, Royal Institute of Technology, Stockholm, Sweden

Mar. 1985 – Mar. 2000: Scientist, Asst. Prof., Assoc. Prof., Physics Dept., Moscow State Pedagogical University, Moscow, Russia

**Honors and Awards**

2003 - R&D100 Award, USA, 2002 - Outstanding Mentoring of Undergraduate Students Engaged in Research Award, UofR, Rochester NY, USA, 1999 – Wener-Gren Foundation Award, Stockholm, Sweden. PI and Co-PI of the grants from RFBR and NSF.

**Scientific Activity Indices**: h=18, i10 = 24

**Service Activities**

Editor of IEEE Trans. On Applied Superconductivity, Reviewer for National Science Foundation, Physical Review Letters, Physical Review B, IEEE Trans. on Applied Superconductivity, Physica B, Physica C, Journal of Modern Optics and others

**Advised Ph. D. Students**: UB SUNY (USA) - C. Keleshis, H. Hamwi, M. Bell

**Peer-Review Publications 2002-2011**

1. A. Antipov, M. Bell, M. Yasar, V. Mitin, W. Scharmach, M. Swihart, A. Verevkin, A. Sergeev, “Luminescence of colloidal CdSe/ZnS nanoparticles: high sensitivity to solvent phase transitions”,  *Nanoscale Research Letters* **6**, 142 (2011).

2. E. Shangina, K. Smirnov, D. Morozov, V. Kovalyuk, G. Goltsman, A. Verevkin, A. Toropov, P. Mauskopf, “[Concentration dependence of energy relaxation time in AlGaAs/GaAs heterojunctions: direct measurements](http://iopscience.iop.org/0268-1242/26/2/025013)”, *Semiconductor Science and Technology* **26**, 025013 (2011).

3. M. Bell, A. Sergeev, J. P. Bird, V. Mitin, A. Verevkin, “Crossover from Fermi Liquid to Multichannel Luttinger Liquid in High-Mobility Quantum Wires”, *Physical Review Letters* **104**, 46805 (2010).

4. E. Shangina, K. Smirnov, D. Morozov, V. Kovalyuk, G. Gol’tsman, A. Verevkin, A. Toropov, “[Frequency bandwidth and conversion loss of a semiconductor heterodyne receiver with phonon cooling of two-dimensional electrons](http://www.springerlink.com/index/66033PPL4485841Q.pdf)”, *Semiconductors* **44**, 1427 (2010).

5. V. Novikov, T. Chukina, A. Verevkin, “[Anomalies in thermal expansion of rare-earth diborides in the temperature range of magnetic phase transformations](http://www.springerlink.com/index/6217081267223328.pdf)”, *Physics of the Solid State* **52**, 364 (2010).

6. E.L. Shangina, K.V. Smirnov, D.V. Morozov, V.V. Kovalyuk, G.N. Gol’tsman, A.A. Verevkin, A.I. Toropov, “[Concentration dependence of the intermediate frequency bandwidth of submillimeter heterodyne AlGaAs/GaAs nanostructures](http://www.springerlink.com/index/v56h2324728ug1h4.pdf)”, *Bulletin of the Russian Academy of Sciences: Physics* **74**, 100 (2010).

7. K. Keleshis, K. Hoffmann, H. Hamwi, W. Wang, I. Cathalina, D. Bednarek, A. Verevkin, S. Rudin, "Real time implementation of distortion corrections for a tiled EMCCD-based solid state x-ray image intensifier (SSXII)", *SPIE Proc. on Medical Imaging 2009: Physics of Medical Imaging* **7258**, p. 72583B (2009).

8. V Mitin, A Sergeev, M Bell, J Bird, A Verevkin, “Crossover from weakly-disordered Fermi liquid to Luttinger liquid in quasi-1D nanostructures”, *Journal of Physics: Conference Series* **193**, 012116, 2009.

9. K. Keleshis, I. Cathalina, H. Yadava, R. Vinod, D. Bednarek, K. Hoffmann, A. Verevkin, S. Rudin, "LabVIEW Graphical User Interface for a New High Sensitivity, High Resolution Micro-Angio-Fluoroscopic and ROI-CBCT System", *SPIE Proc. Physics of Medical Imaging* **6913**, 69134A (2008).

10. H. Hamwi, J. Lee, K. Hoffmann, S. Rudin, A. Verevkin, "Distortion, orientation, and translation corrections of tiled EMCCD detectors for the new solid state x-ray image intensifier (SSXII)", *SPIE Proc." Physics of Medical Imaging"* **6913**, 69133T (2008).

11. H. Hamwi, K. Hoffmann, P. Dinu, C. Keleshis, A. Verevkin, S. Rudin, “Distortion and orientation correction of tiled EMCCD detector images”, *International Journal of* *Computer Assisted Radiology and Surgery* ***2***, 131 (2007).

12. S. Rudin, A. Kuhls, C. Keleshis, D. Kim, G. Yadava, V. Patel, C. Ionita, H. Hamwi, A. Cartwright, A. Verevkin, K. Hoffmann, and D. Bednarek, “The Solid State X-Ray Image Intensifier (SSXII): A Next-Generation High-Resolution Fluoroscopic Detector System”, *Medical Physics* **34**, 2585 (2007).

13. A.Verevkin, “Photon number-resolved detectors: prospects and applications**”,** *Proc. SPIE* **6447**, 644706 (2007)

14. M. Bell, A. Sergeev, *V. Mitin, J. Bird, A. Verevkin, and G. Gol'tsman*, “*One-dimensional resistive states in quasi-two-dimensional superconductors: Experiment and theory*”, Phys. Rev. **B 76**, 094521 (2007).

15. M. Bell, A. Antipov, B. Karasik, A. Sergeev, V. Mitin, and A. Verevkin, “*Photon Number-Resolved detection with Sequentially Connected Nanowires*”, *IEEE Trans. on Appl. Supercond.* 17, 289 (2007).

16. M. Bell, J. Bird, N. Kaurova, A. Divochiy, G. Goltsman, and A. Verevkin, “On the Nature of Resistive Transition in Disordered Superconducting Nanowires”, *IEEE Trans. on Appl. Supercond.* **17**, 267 (2007).

17. W. Słysz, M. Węgrzecki, J. Bar, P. Grabiec, M. Górska, V. Zwiller, C. Latta, P. Böhi, A. J. Pearlman, A. S. Cross, D. Pan, I. Komissarov, A. Verevkin, I. Milostnaya, O. Minaeva, A. Antipov, O. Okunev, A. Korneev, K. Smirnov, B. Voronov, N. Kaurova, G. Goltsman, M. Currie and R. Sobolewski, “**Fiber-coupled detector based on NbN superconducting single-photon nanostructures for quantum communications”,** *J. of Modern Optics* **54**, 315 (2007).

18. W. Slysz, M. Wegrzecki, J. Bar,P. Grabiec, M. Górska, V. Zwiller, C. Latta, P. Bohi Milostnaya, O. Minaeva, A. Antipov, O. Okunev, A. Korneev, K. Smirnov, B. Voronov,N. Kaurova, G. Gol'tsman, A. Pearlman, A. Cross, I. Komissarov, A. Verevkin, and R. Sobolewski, “Fiber-coupled single-photon detectors based on NbN superconductingnanostructures for practical quantum cryptography and photon-correlation studies”, *Appl. Phys. Lett.* **88**, 261113 (2006).

19. G.Goltsman, A.Korneev, I.Rubtsova, I. Milostnaya, G. Chulkova, O. Minaeva, K. Smirnov, B. Voronov, W. Słysz, A. Pearlman, A. Verevkin, and R. Sobolewski, *“*Ultrafast superconducting single-photon detectors for near-infrared-wavelength quantum communications*”, Phys. Stat. Sol. (c)* ***2***, 1480-1488 (2005).

20. A.Korneev, O. Minaeva, I. Rubtsova, I. Milostnaya, G. Chulkova, B. Voronov, K. Smirnov, G. Gol'tsman, A. Pearlman, W. Słysz, A. Cross, P. Alvarez, A. Verevkin, .R Sobolewski, “Superconducting single-photon ultrathin NbN film detector”, *Quantum Electronics* **35**, 689 (2005).

21. A. Pearlman, A. Cross, W. Slysz, J. Zhang, A. Verevkin. M. Curie, A. Korneev, P. Kouminov, K. Smirnov, B. Voronov, G. Gol’tsman, and R. Sobolewski, ”Gigahertz counting rates of NbN single-photon detectors for quantum communications”, *IEEE Trans. on Appl. Supercond*. **15**, 579 (2005).

22. A. Korneev, V. Matvienko, O. Minaeva, I. Milostnaya, I. Rubtsova, G. Chulkova, K. Smirnov, B. Voronov, G. Gol’tsman, W. Slysz, A. Verevkin, and R. Sobolewski, “Quantum efficiency and noise equivalent power of nanostructured NbN single-photon detectors in wavelength range from visible to infrared”, *IEEE Trans. on Appl. Supercond*. **15**, 571 (2005).

23. J. Kitaygorsky J. Zhang, A. Verevkin, A, Sergeev, A. Korneev, V. Matvienko, P. Kouminov, K. Smirnov, B. Voronov, G. Gol’tsman, and R. Sobolewski, “Origin of dark counts in nanostructured NbN single-photon detectors”, *IEEE Trans. on Appl. Supercond*. **15**, 545 (2005).

24. J.K.W. Yang, E. Dauler, A. Ferri, A. Pearlman, A. Verevkin, G. Gol’tsman, B. Voronov, R. Sobolewski, W.E. Keicher, and K. K. Berggren, “Fabrication development for nanowire GHz-counting-rate single-photon detectors”, *IEEE Trans. on Appl. Supercond.* **15**, 626 (2005).

25. D. Wang, A.Verevkin, R. Sobolewski, R. Adam, A. vander Hart, and R. Franchy, “*Magnetooptical Kerr effect measurements of ultrafast spin dynamics in cobalt nanodots*”, IEEE Trans. on Nanotechnology **4**, 460 (2005).

26. R. Rey-de-Castro, D. Wang, X. Jeng, A.Verevkin, R. Sobolewski, M. Mikulics, R. Adam, P. Kordos, and A. Mycielski, “Cd1-xMnxTe semimagnetic semiconductors for ultrafast spintronics and magneto-optics”, *IEEE Trans. on Nanotechnology* **4**, 106 (2005).

27. R. Rey-de-Castro, D. Wang, A.Verevkin, A. Mycielski, and R. Sobolewski, “Subpicosecond Faraday effect in Cd1-xMnxTe and its application in magneto-optical sampling”, *Appl. Phys. Lett.* **85**, 3806 (2005).

28. A. Korneev, P. Kouminov, O. Okunev, G. Chulkova, K. Smirnov, G. N. Gol’tsman, M. Currie, W. Lo, K. Wilsher, J. Zhang, W. Słysz, A. Pearlman, A. Verevkin, and Roman Sobolewski, “Sensitivity and speed of NbN superconducting single-photon detector”, *Appl. Phys. Letters* **84**, 5338 (2004).

29. A. Verevkin, A. Pearlman, W. Slysz, J. Zhang, R. Sobolewski, G. Gol'tsman, G. Chulkova, A. Korneev, O. Okunev, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, and M. Currie, “Ultrafast Superconducting Single-Photon Detectors for Infrared Wavelength Quantum Communications”, *J. of Modern Optics* **51**, 1447 (2004).

30. G. Gol’tsman, A. Korneev, V. Izbenko, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, A. Verevkin, J. Zhang, A. Pearlman, W. Slysz and R. Sobolewski, “Nano-structured superconducting single-photon detectors”, *Nucl. Instrum. Meth.* ***A* 520**, 527 (2004).

31. Sobolewski, R.; Verevkin, A.; Gol'tsman, G.N.; Lipatov, A.; Wilsher, K*.* **“Ultrafast superconducting single-photon optical detectors and their applications”**, *IEEE Trans. on Appl. Supercond.* **13**, 1151(2003)*.*

32. A. Korneev, A. Lipatov, O. Okunev, G. Chulkova, K. Smirnov, G. Gol’tsman, J. Zhang, A. Verevkin, W. Slysz and R. Sobolewski, “GHz counting rate NbN single-photon detectors for IR diagnostics of VLSI CMOS circuits”, *Microelectronic Engineering* **69**, 274 (2003).

33. J. Zhang, N. Boiadjieva, G. Chulkova, H. Deslandes, G. N. Gol'tsman, A. Korneev, P. Kouminov, M. Leibowitz, W. Lo, R. Malinsky, O. Okunev, A. Pearlman, W. Slysz, A. Verevkin, K. Wilsher, C. Tsao, and R. Sobolewski, "Non-invasive CMOS circuit testing with NbN superconducting single-photon detectors," *Electronics Letters* **39**, 1086 (2003).

34. J. Zhang, W. Slysz, A. Pearlman, A. Verevkin, R. Sobolewski, O. Okunev, G. Chulkova, and G. Gol’tsman, "Time delay of the resistive state formation in superconducting NbN stripes illuminated by single optical photons", *Phys Rev.* ***B* 67**, 132508 (2003).

35. J. Zhang, A. Verevkin, W. Slysz, R. Sobolewski, G. Chulkova, A. Korneev, A. Lipatov, O. Okunev, and G. Gol’tsman, "Response time characterization of NbN superconducting single-photon detectors", *IEEE Trans. on Appl, Supercond.* **13**, 180 (2003).

36. G. N. Gol’tsman, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, V. Drakinsky, J. Zhang, A. Verevkin, and Roman Sobolewski, "Fabrication of Nanostructured Superconducting Single-Photon Detectors", *IEEE Trans. on Appl. Supercond.* **13**, 192 (2003).

37. A. Lipatov, O. Okunev, K. Smirnov, G. Chulkova, A. Korneev, P. Kouminov, G. N. Gol’tsman, J. Zhang, A. Verevkin, W. Slysz and Roman Sobolewski, "Ultrafast NbN hot-electron Single-Photon Detectors for electronic applications", *Supercon. Sci. & Tech.* **15**, 1689 (2002).

38. A. Verevkin, J. Zhang, R. Sobolewski, A. Lipatov, O. Okunev, G. Chulkova, A. Korneev, K. Smirnov, and G. Gol'tsman, "Detection efficiency of large-active-area NbN single-photon superconducting detectors in the ultraviolet to near -infrared range", *Appl. Phys. Letters* **80**, 4687 (2002).

39. R. Sobolewski, Y. Xu, X. Zheng, C. Williams, J. Zhang, A. Verevkin, G. Chulkova, A. Korneev, A. Lipatov, O. Okunev, K. Smirnov, and G. Gol'tsman, "Spectral Sensitivity of the NbN Single-photon superconducting detector", *IEICE Trans. Electron.* **E85-C**, 797 (2002).

40. A. Verevkin, E.M. Gershenzon, G. N. Gol’tsman, N.G. Ptitsina, G.M. Chilkova, K.S. Smirnov, and R. Sobolewski, “Direct measurements of Energy Relaxation Times in Two-dimensional Structures under Quai-Equilibrium Conditions”, *Materials Science Forum* **384-385**, 107 (2002).

41. I. Siddiqi, A. Verevkin, D.E. Prober, A. Skalare, W.R. McGrath, P.M. Echternach, H.G. LeDuc, “Heterodyne mixing in diffusion-cooled superconducting aluminum hot-electron bolometers”, *J. Appl. Phys.* **91**, 4646 (2002).

**Patents**

1. W. Slysz, M. Wegrezcki, J. Bar, W. Milczarek, G.N. Goltsman, A. Verevkin, R. Sobolewski, Poland Patent P367391.

2. V. Mitin, M. Bell, A. Sergeyev, A. Verevkin, WO/2011/022544 USA Patent.

**Selected Conference Publications 2002-2011**

1. J. Paramanandam, M. Bell, A. Verevkin, L. Ioffe, M. Gershenson, Magnetic-field-driven phase transitions in Josephson arrays, APS *March Meeting-2011*, Bulletin of the American Physical Society **56**, 3/23/2011, 2011.

2. K Wang, R Ramaswamy, M Bell, A Sergeev, G Strasser, A Verevkin, V Mitin, Microwave heterodyne receiver based on AlGaAs/GaAs 2DEG bolometer, *Infrared Millimeter and Terahertz Waves (IRMMW-THz) 35th International Conference-2010*, 1, 2010.

3. Matthew Bell, Andrei Sergeev, Jonathan Bird, Vladimir Mitin, Aleksandr Verevkin, [Interaction Effects in the Conductance of Quantum Wires: Crossover from weakly-disordered Fermi liquid to Luttinger liquid](http://meetings.aps.org/link/BAPS.2010.MAR.V16.2), *APS March Meeting-2010*, 2010/3/18, Bulletin of the American Physical Society 55, 2010.

4. R. Ramaswamy, K. Wang, A. Sergeev, G. Strasser, V. Mitin, M. Bell, A. Verevkin, [Effects of disorder on performance of 2DEG hot-electron mixer](http://meeting.aps.org/Meeting/MAR10/Event/119488), *APS March Meeting-2010*, Bulletin of the American Physical Society 55, 2010/3/17, 2010.

5. A. Antipov, A. Sergeev, V. Mitin, M. Swihart, A. Verevkin, [Luminescence of colloidal CdSe/ZnS nanoparticles as a probe of solvent state](http://meeting.aps.org/Meeting/MAR10/Event/117543), *APS March Meeting-2010*, Bulletin of the American Physical Society 55, 2010/3/15, 2010.

6. R. Biswas, M. Kandel, G. Mehta, H. Kulhandjian, A. Verevkin, A. T. Fam, N. M. Litchinitser, [Antiresonant-Guiding Photonic Crystal Fibers for Refractive Index Gradients Sensing](http://www.opticsinfobase.org/abstract.cfm?URI=FiO-2009-FTuE5), *Frontiers in Optics Conference (Optical Society of America) 2009*, 2009.

7. K. Wang, R. Ramaswamy, M. Bell, A. Sergeev, A. Verevkin, G. Strasser, V. Mitin, D. Wobschall, Terahertz mixing in AlGaAs/GaAs 2DEG hot-electron microbolometers at liquid nitrogen temperatures, *APS March Meeting 2009*, Pittsburgh, PA, 2009.

8. A. Antipov, M. Bell, M. Yasar, V. Mitin, A. Verevkin, Luminescence of nanoparticles in solvent environment near its phase transition, *APS* March Meeting 2009, Pittsburgh, PA, 2009.

9. R. Ramaswamy, K. Wang, M. Bell, A. Sergeev, A. Verevkin, G. Strasser, V. Mitin, D. Wobschall, Electron heating in disordered 2DEG GaAs/AlGaAs structures by THz radiation, *APS March Meeting 2009*, Pittsburgh, PA, 2009.

10. M. Bell, A. Sergeev, J. Bird, V. Mitin, A. Verevkin, Interaction effects in conductance of quasi-1D channels formed from AlGaAs/GaAs 2DEG: Crossover from weakly-disordered Fermi liquid to Luttinger liquid, *APS March Meeting 2009*, Pittsburgh, PA, 2009.

11. S*.* Rudin, A*.* Kuhls, C*.* Keleshis, D*.* Kim, G*.* Yadava, V*.* Patel, C*.* Ionita, H*.* Hamwi, A*.* Cartwright, *A.* Verevkin, K*.* Hoffmann, and D*.* Bednarek*, “*The Solid State X-Ray Image Intensifier (SSXII): A Next-Generation High-Resolution Fluoroscopic Detector System*”, 49th AAPM Annual Meeting*, July 2007, Minneapolis MN.

12. A. Verevkin, “Photon Number-Resolved Detectors”, *Photonics West BiOS ‘07*, January 2007, San Jose CA.

13. M. Bell, A. Antipov, B. Karasik, A. Sergeev, and A. Verevkin, “Photon Number-Resolved Detection with Sequentially Connected Nanowires”, *Applied Superconductivity Conference ‘06*, August 2006, Seattle WA.

14. M. Bell, J. Bird, N. Kaurova, A. Divochiy, G. Gol’tsman, and A. Verevkin, “On the Nature of Resistive Transition in Disordered Superconducting Nanowires”, *Applied Superconductivity Conference ‘06*, August 2006, Seattle WA.

15. M. Bell, A. Sergeev, and A. Verevkin, “Resistive Transition in Superconducting NbN Nanowires”, *American Physical Society March Meeting*’06, Baltimore MD, March 2006.

16. A. Korneev, O. Minaeva, I. Rubtsova, I. Milostnaya, G. Chulkova, V.Voronov, K. Smirnov, V. Seleznev, G. Gol'tsman, A. Pearlman, W. Slysz, A. Cross, P. Alvarez, A. Verevkin, and R. Sobolewski “Superconducting single photon detector based on ultrathin NbN film” *The 3d International Seminar named after Klishko*, 2005, Moscow, Russia

17. Rubtsova I.A.,Korneev A.A., Matvienko V.M., Minaeva O.V., Milostnaya I.I., Chulkova G.M., Gol'tsman G.N., Verevkin A.A., and R. Sobolevski. “Spectral sensitivity of single photon infrared detector based on thin NbN films”, abstracts of *International Conference on Thin Films and Nanostructures*, Moscow, 2004, P.183-185.

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19. A.Verevkin, A. Pearlman, J. Zhang, W. Slysz, R. Sobolewski, K. Wilsher, W. Lo, O. Okunev, A. Korneev, P. Kouminov, G. Chulkova, and G. N. Gol'tsman, “A superconducting single-photon detector for CMOS IC probing”, *IEEE/LEOS 2003*, October 26-30, 2003, Tucson, AZ.

20. A. Verevkin, J. Zhang, A. Pearlman, W. Slysz, R. Sobolewski, A. Korneev, P. Kouminov, O. Okunev, G. Chulkova, and G. Gol’tsman, “Ultimate sensitivity of superconducting single-photon detectors in the visible to infrared range”, *TDW 2003* *International Workshop on Thermal Detectors,* June 2003, University of Maryland, Washington DC, USA.

21. A. Verevkin, A. Pearlman, W. Slysz, J. Zhang, R. Sobolewski, G. Gol'tsman, G. Chulkova, A. Korneev, O. Okunev, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, and M. Currie, “Ultrafast Superconducting Single-Photon Detectors for Infrared Wavelength Quantum Communications”, *NIST Workshop on Single-Photon Detectors*, Gaithersburg MD, May 2003.

22. J. Zhang, A. Pearlman, W. Slysz, A. Verevkin, R. Sobolewski, O. Okunev, A. Korneev, P. Kouminov, K. Smirnov, G. Chulkova, and G. Gol'tsman, “Infrared picosecond superconducting single-photon detectors for CMOS circuit testing”, *2003 CLEO®/QELS,* June 2003, Baltimore, MD, USA.

23. G. Gol’tsman, A. Korneev, V. Izbenko, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, A. Verevkin, J. Zhang, A. Pearlman, W. Slysz and R. Sobolewski, “Nano-structured superconducting single-photon detectors”, *10th International Workshop on Low-temperature detectors*, Genoa, Italy, July 2003.

24. A. Verevkin, W. Slysz, A. Pearlman, J. Zhang, R. Sobolewski, O. Okunev, A. Korneev, P. Kouminov, K. Smirnov, G. Chulkova, and G. Gol'tsman, “Real-time GHz-rate counting of infrared photons using nanostructured NbN superconducting detectors”, *2003 CLEO®/QELS,* June 2003, Baltimore, MD, USA.

25. R. Sobolewski, J. Zhang, W. Slysz, A. Pearlman, A. Verevkin, A. Lipatov, O. Okunev, G. Chulkova, A. Korneev, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, V. Drakinsky, and G. N. Gol'tsman, "Ultrafast Superconducting Single-Photon Optical Detectors”, *International Conference on Ultrafast Phenomena in Semiconductors*, Riga, Latvia, 2003) in: Advanced Optical Devices, ed. by A. Krumins and J. Spigulis, *Proc. SPIE* vol. 5123, pp. 2-12 (2003).

26. A. Verevkin, A. Pearlman, W. Slysz, J. Zhang, R. Sobolewski, G. Gol'tsman, G. Chulkova, A. Korneev, O. Okunev, K. Smirnov, P. Kouminov, B. Voronov, N. Kaurova, and M. Currie, “Ultrafast Superconducting Single-Photon Detectors for Infrared Wavelength Quantum Communications”, *SPIE-AeroSense 2003***,** April 2003, Orlando, Florida, USA (published in SPIE Proceedings).

27. J. Zhang, A. Verevkin, W. Slysz, R. Sobolewski, O. Okunev, A. Korneev, P. Kouminov, A. Lipatov, G. Chulkova, G. Gol'tsman, W. Lo, and K. Wilsher, “Ultrafast superconducting single-photon detectors for CMOS debugging”, *IEEE 26th annual EDS/CAS activities in Western New York Conference, Nov. 2002*, inRochester, NY, USA.

28. J. Zhang, A. Verevkin, W. Slysz, R. Sobolewski, G. Chulkova, A. Korneev, A. Lipatov, O. Okunev, and G. Gol’tsman, “Response time characterization of NbN superconducting single-photon detectors”, *Applied Superconductivity Conference,* Aug. 2002*,* Houston, Texas, USA.

29. A. Verevkin, J. Zhang, W. Slysz, R. Sobolewski, G. Chulkova, A. Korneev, A. Lipatov, O. Okunev, and G. Gol’tsman, “Detection efficiency and spectral sensitivity of superconducting single-photon detectors”, *Applied Superconductivity Conference,* Aug. 2002*,* Houston, Texas, USA.

30. A. Verevkin, J. Zhang, W. Slysz, R. Sobolewski, A. Lipatov, O. Okunev, G. Chulkova, A. Korneev, and G. N. Gol'tsman, "Superconducting Single-Photon Detectors for GHz-Rate Free-Space Quantum Communications" in: *Free-Space Laser Communication and Laser Imaging*, *ed. by* J. C. Ricklin and D. G. Voelz, *Proc. SPIE*, vol. 4821, pp. 447-454 (2002).

31. R. Sobolewski, A. Verevkin, and G. Goltsman, “Superconducting NbN Single-Photon Detectors”, invited, *Applied Supercond. Conf.,* Aug. 2002*,* Houston, Texas, USA.

32. A. Verevkin, J. Zhang, W. Slysz, R. Sobolewski, A. Lipatov, O. Okunev, G. Chulkova, A. Korneev, K. Smirnov, G. Gol'tsman and A. Semenov, "Spectral sensitivity and temporal resolution of NbN superconducting single-photon detectors", *Proceedings of the 13th International Symp. on Space THz Technology*, Harvard University, page:105-112 (2002).

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