

CURRICULUM VITAE

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Affiliation and official address: Assistant Professor, Texas A&M University
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Co-affiliations *Principal Investigator*
Russian Quantum Center,
BC "Ural", 100, Novaya str., Skolkovo, Odintsovo district
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Co-affiliations *Senior scientific researcher,*
Department of Optics,
P. N. Lebedev Physical Institute, Russian Academy of Sciences,
Leninsky pr, 53,
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Foreign languages: English

Education

2003 Ph.D, Moscow Institute of Physics and Technology
2000 MS, Moscow Institute of Physics and Technology
1998 BS, Moscow Institute of Physics and Technology

Career/Employment

Since 2015 Assistant Professor, Texas A&M University
Since 2012 Russian Quantum Center, Principal Investigator
2010-2012 Russian Quantum Center, Acting Director
since 2003 P. N. Lebedev Physical Institute, Russian Academy of Sciences
Senior Research Scientist (since 2007), Research Scientist (2003-2007)
2006 – 2013 Harvard University
Visiting Scholar (April –October , 2006, January –July, 2007, January – July 2008, October –
December, 2008, January – July, 2010, May-July, 2011, May – July, 2012 Sep.– Dec 2012)
2005 – 2015 Moscow Institute of Physics and Technology, Moscow Region
Senior Lecturer

Scientific Interests

Quantum optics, quantum interfaces, nanoscale sensors, solid-state atom-like systems, integrated photonic and plasmonic structures, ultracold atoms, laser spectroscopy, quantum information processing and simulations.

Awards

President of Russian Federation Fellowship for Young Researcher 2006

Vavilov Prize of PN Lebedev Institute 2005

Fundamental Atomic Spectroscopy -19 Conference, prize for best talk – 2009

OSA Publishing reviewer recognition

List of selected publications:

1. N.N. Kolachevsky, A.V. Akimov, N.A. Kiselev, A.A. Papchenko, V.N. Sorokin, S.I. Kanorskii, "Resonances of coherent population trapping in samarium vapours", *Quantum Electronics* **31** (1), 61-66 (2001)
2. A.V. Akimov, A.N. Matveev, A.V. Sokolov, E.O. Tereshenko, D.A. Kondratjev, V.N. Sorokin, S.I. Kanorsky, N.N. Kolachevsky "Coherent bichromatic spectroscopy of Rb vapor with a femtosecond laser", *Journal of Raman Spectroscopy* **37**(6), 712-717 (2006)
3. A.V. Akimov, A. Mukherjee, C.L. Yu, D.E. Chang, A.S. Zibrov, P.R. Hemmer, H. Park & M.D. Lukin "Generation of single optical plasmons in metallic nanowires coupled to quantum dots", *Nature* **450**, 402-406 (2007);
4. N. Kolachevsky, A. Akimov, I. Tolstikhina, K. Chebakov, A. Sokolov, P. Rodionov, S. Kanorski and V. Sorokin "Blue laser cooling transitions in Tm I" *Applied Physics B: Lasers and Optics* **89** , 589-594 (2007)
5. A.V. Akimov, E.O. Tereshchenko, S.A. Snigirev, A.Yu. Samokotin, A.V. Sokolov, N.N. Kolachevskii, and V. N. Sorokin "Resonant Interaction of Femtosecond Radiation with a Cloud of Cold 87Rb atoms", *Journal of Experimental And Theoretical Physics*, **109**(3) , 419–430, (2009)
6. Abram L. Falk, Frank H. L. Koppens, Chun L. Yu, Kibum Kang, Nathalie de Leon Snapp, Alexey V. Akimov, Moon-Ho Jo, Mikhail D. Lukin, Hongkun Park, "Near-field electrical detection of optical plasmons and single-plasmon sources" *Nature Physics* **5**, 475–479 (2009)
7. K. Chebakov, A. Sokolov, A. Akimov, D. Sukachev, S. Kanorsky, N. Kolachevsky, and V. Sorokin, "Zeeman slowing of thulium atoms," *Optics Letters*, **34**, 2955–2957 (2009)
8. D. Sukachev, , A. Sokolov, K. Chebakov, A. Akimov, N. Kolachevsky, V. Sorokin Sub-doppler laser cooling of thulium atoms in a magneto-optical trap, *JETP Letters* **92**(10), pp 703-706, (2010)
9. D. Sukachev, A. Sokolov, K. Chebakov, A. Akimov, S. Kanorsky, N. Kolachevsky, and V. Sorokin, "Magneto-optical trap for thulium atoms", *Physical Review A* **82**, 011405 (2010)
10. D. Sukachev, K. Chebakov, A. Sokolov, A. Akimov, N. Kolachevsky, and V. Sorokin, "Laser cooling of thulium atoms", *Optics Spectroscopy*, **111**(4), 667–671 (2011)
11. Nathalie P. de Leon, Brendan J. Shields, Chun L. Yu, Dirk E. Englund, Alexey V. Akimov, Mikhail D. Lukin, and Hongkun Park, "Tailoring Light-Matter Interaction with a Nanoscale Plasmon Resonator", *Physical Review Letters* **108**, 226803 (2012)
12. J.D. Thompson, T.G. Tiecke, N.P. de Leon, J. Feist, A.V. Akimov, M. Gullans, A.S. Zibrov, V. Vuletic, and M.D. Lukin, "Coupling a Single Trapped Atom to a Nanoscale Optical Cavity", *Science* 1237125 (2013) [DOI:10.1126/science.1237125]
13. S. Snigirev, A. Golovizin, D. Tregubov, S. Pyatchenkov, D. Sukachev, A. Akimov, V. Sorokin, and N. Kolachevsky, "Measurement of the 5D-level polarizability in laser-cooled Rb atoms", *Physical Review A* **89**, 012510 (2014)
14. A. Sushkov , N. Chisholm , I. Lovchinsky , M. Kubo , Pik Kwan Lo , S. Bennett , D. Hunger , A. Akimov , R.L. Walsworth, Hongkun Park , Mikhail D. Lukin, "All-optical sensing of a single-molecule electron spin", *Nano Lett.* **14**(11), 6443–6448 (2014)
15. M.Y. Shalaginov, V.V. Vorobyov, J. Liu, M. Ferrera, A.V. Akimov, A. Lagutchev, A.N. Smolyaninov, V.V. Klimov, J. Irudayaraj, A.V. Kildishev, A. Boltasseva and V.M. Shalaev, "Enhancing the nanodiamond nitrogen-vacancy single-photon source with TiN/AlScN hyperbolic metamaterial superlattice", *Laser Photonics Rev.* **9**(1), 120-127 (2015).
16. V.V. Vorobyov, A.Yu. Kazakov, V.V. Soshenko, A.A. Korneev, M.Y. Shalaginov, S.V. Bolshedvorskii, V.N. Sorokin, A.V. Divochiy, Y.B. Vakhtomin, K.V. Smirnov, B.M. Voronov, V.M. Shalaev, A.V. Akimov, and G.N. Goltsman., "Superconducting detector for visible and near-infrared quantum emitters [Invited]," *Opt. Mater. Express* **7**(2), 513, Optical Society of America (2017)

17. I. S. Cojocaru, S. V. Pyatchenkov, S. A. Snigirev, I. A. Luchnikov, E. S. Kalganova, G. A. Vishnyakova, D. N. Kublikova, V. S. Bushmakin, E. T. Davletov, V. V. Tsyganok, O. V. Belyaeva, A. Khoroshilov, V. N. Sorokin, D. D. Sukachev, and A. V. Akimov, "Light-assisted collisions in ultracold Tm atoms," *Phys. Rev. A* **95(1)**, 12706, American Physical Society (2017)
18. Fan, J.-W.; Cojocaru, I.; Becker, J.; Alajlan, A.; Blakley, S.; Rezaee, M.; Lyamkina, A.; Palyanov, Y. N.; Borzdov, Y. M.; Yang, Y.-P.; et al. Germanium-Vacancy Color Center in Diamond as a Temperature Sensor. *ACS Photonics* **2018**, *5* (3), 765–770.