

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,
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Co-affiliations *Senior scientific researcher*, P. N. Lebedev Physical Institute, Russian Academy of Sciences,
Leninsky pr, 53,
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Languages: English, Russian

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 2007 P. N. Lebedev Physical Institute, Russian Academy of Sciences
Senior research scientist
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&Sep-Dec, 2012)
2005 – 2015 Moscow Institute of Physics and Technology, Moscow Region
Senior Lecturer
2003 – 2007 P. N. Lebedev Physical Institute, Russian Academy of Sciences
Research scientist

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

List of selected publications:

1. Yu. V. Vladimirova, B. A. Grishanin, V. N. Zadkov, N. N. Kolachevskii, A. V. Akimov, N. A. Kisilev, and S. I. Kanorskii, "Spectroscopy of Coherent Dark Resonances in Multilevel Atoms for the Example of Samarium Vapor", *Journal of Experimental and Theoretical Physics*, **96(4)**, 629, (2003)
2. 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);
3. 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)
4. 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)
5. 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)
6. 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)
7. 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)
8. 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)
9. 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)
10. Measurement of the 5D-level polarizability in laser-cooled Rb atoms, S. Snigirev, A. Golovizin, D. Tregubov, S. Pyatchenkov, D. Sukachev, A. Akimov, V. Sorokin, and N. Kolachevsky, *Physical Review A* **89**, 012510 (2014)
11. All-optical sensing of a single-molecule electron spin, Alexander Sushkov , Nicholas Chisholm , Igor Lovchinsky , Minako Kubo , Pik Kwan Lo , Steven Bennett , David Hunger , Alexey Akimov , Ronald L. Walsworth , Hongkun Park , Mikhail D. Lukin, *Nano Lett.*, **14(11)**, 6443–6448 (2014)
12. 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).
13. Vorobyov, V. V., Soshenko, V. V., Bolshedvorskii, S. V., Javadzade, J., Lebedev, N., Smolyaninov, A. N., Sorokin, V. N., Akimov, A. V., "Coupling of single NV center to adiabatically tapered optical single mode fiber," *Eur. Phys. J. D* **70(12)**, 269, (2016).
14. Vorobyov, V. V., Kazakov, A. Y., Soshenko, V. V., Korneev, A. A., Shalaginov, M. Y., Bolshedvorskii, S. V., Sorokin, V. N., Divochiy, A. V., Vakhtomin, Y. B., et al., "Superconducting detector for visible and near-infrared quantum emitters [Invited]," *Opt. Mater. Express* **7(2)**, 513, Optical Society of America (2017)
15. Cojocar, I. S., Pyatchenkov, S. V., Snigirev, S. A., Luchnikov, I. A., Kalganova, E. S., Vishnyakova, G. A., Kublikova, D. N., Bushmakina, V. S., Davletov, E. T., et al., "Light-assisted collisions in ultracold Tm atoms," *Phys. Rev. A* **95(1)**, 12706, American Physical Society (2017)
16. S. Bogdanov, M. Y. Shalaginov, A. Akimov, A. S. Lagutchev, P. Kapitanova, J. Liu, D. Woods, M. Ferrera, P. Belov, J. Irudayaraj, A. Boltasseva, and V. M. Shalaev, "Electron spin contrast of Purcell-enhanced nitrogen-vacancy ensembles in nanodiamonds", *Phys. Rev. B* **96**, 035146 (2017)