

Publication list of the Quantum photonics team @ DSI:

1. Sumin Choi, Victor Leong, Valery A. Davydov, Viatcheslav N. Agafonov, Marcus W.O. Cheong, Dmitry A. Kalashnikov, Leonid A. Krivitsky "Varying temperature and silicon content in nanodiamond growth: effects on silicon-vacancy centers" [arXiv:1710.06076](https://arxiv.org/abs/1710.06076) (2017)
2. Anna V. Paterova, Hongzhi Yang, Chengwu An, Dmitry A. Kalashnikov, Leonid A. Krivitsky "Tunable Optical Coherence Tomography in the Infrared Range Using Visible Photons" [arXiv:1710.02343](https://arxiv.org/abs/1710.02343) (2017)
3. Yink Loong Len, Jibo Dai, Berthold-Georg Englert, Leonid A. Krivitsky "Unambiguous path discrimination in a two-path interferometer" [arXiv:1708.01408](https://arxiv.org/abs/1708.01408) (2017)
4. Anna Paterova, Hongzhi Yang, Chengwu An, Dmitry Kalashnikov, Leonid A. Krivitsky "Measurement of infrared optical constants with visible photons" [arXiv:1706.04739](https://arxiv.org/abs/1706.04739) (2017)
5. D. Kalashnikov, E. Melik-Gaykazyan, A. Kalachev, Y. Yu, A. Kuznetsov & L. Krivitsky "Quantum interference in the presence of a resonant medium" Scientific Reports 7, 11444 (2017) <https://dx.doi.org/10.1038/s41598-017-11694-z>
6. Thi Phuc Tan Nguyen, Leonid Krivitsky, Leong Chuan Kwek "Coupled mode theory of microtoroidal resonators with a one-dimensional waveguide" Optics Communications 402, 296-301 (2017) <https://dx.doi.org/10.1016/j.optcom.2017.06.035>
7. Paterova, S. Lung, D.A. Kalashnikov, L.A. Krivitsky, "Nonlinear infrared spectroscopy free from spectral selection" Scientific Reports 7, 42608 (2017) <https://dx.doi.org/10.1038/srep42608>
8. CS Ho, SG Tan, MBA Jalil, Z Chen, L.A. Krivitsky, "Role of exchange interaction in nitrogen vacancy center based magnetometry" Physical Review B 94 (24), 245424 (2016) <https://dx.doi.org/10.1103/PhysRevB.94.245424>
9. D. A. Kalashnikov, A. V. Paterova, S. P. Kulik, and L. A. Krivitsky, "Infrared Spectroscopy with Visible Light," Nature Photonics 10, 98-101 (2016) <https://dx.doi.org/10.1038/nphoton.2015.252>
10. R. Paniagua-Dominguez, Y. F. Yu, A. E. Miroschnichenko, L. A. Krivitsky, Y. H. Fu, V. Valuckas, L. Gonzaga, Y. T. Toh, A. Y. S. Kay, B. Luk'yanchuk, A. I. Kuznetsov "Generalized Brewster-Kerker effect in dielectric metasurfaces," Nature Communications 7, 10362 (2016) <https://dx.doi.org/10.1038/ncomms10362>
11. Si-Hui Tan, Leonid A. Krivitsky, and Berthold-Georg Englert, "Measuring Quantum Correlations using Lossy Photon-Number-Resolving Detectors with Saturation," Journal of Modern Optics 63 (3) 276-283 (2016) ; <https://dx.doi.org/10.1080/09500340.2015.1076080>

12. J. Dai, Y. L. Len, Y. S. Teo, B.-G. Englert, and L. A. Krivitsky, "Experimental detection of entanglement with optimal-witness families" *Physical Review Letters* 113, 170402 (2014).
<http://dx.doi.org/10.1103/PhysRevLett.113.170402>
13. D. Kalashnikov, and L. A. Krivitsky, "Measurement of photon correlations with multipixel photon counters" *J. Opt. Soc. Am. B* 31, Issue 10, pp B25 (2014) in special issue "Photon-number-resolving Detectors for Quantum-state Engineering" (invited review)
<http://dx.doi.org/10.1364/JOSAB.31.000B25>
14. N. M. Phan, M. F. Cheng, D. A. Bessarab, and L. A. Krivitsky, "Interaction of Fixed Number of Photons with Retinal Rod Cells," *Physical Review Letters* 112, 213601 (2014) (Editors' suggestion). Highlighted in *Physics Today* 67(7), 16 (2014)
<http://dx.doi.org/10.1103/PhysRevLett.112.213601>
15. D. A. Kalashnikov, Z. Pan, A. I. Kuznetsov, and L. A. Krivitsky "Quantum spectroscopy of plasmonic nanostructures," *Physical Review X* 4, 011049 (2014)
<http://dx.doi.org/10.1103/PhysRevX.4.011049>
16. R. Dong, A. Tipsmark, A. Laghaout, L. A. Krivitsky, M. Ježek, and U. L. Andersen, "Generation of picosecond pulsed coherent state superpositions," *J. Opt. Soc. Am. B* 31, 1192 (2014)
<http://dx.doi.org/10.1364/JOSAB.31.001192>
17. I.B. Bobrov, D. A. Kalashnikov, and L. A. Krivitsky "Imaging of Spatial Correlations of Two-Photon States," *Physical Review A* 89, 043814 (2014) <http://dx.doi.org/10.1103/PhysRevA.89.043814>
18. L. A. Krivitsky, J. J. Wang, Z. Wang, and B. Lukiyanchuk "Locomotion of microspheres for imaging and light focusing applications" *Nature: Scientific Reports* 3, 3501 (2013)
<http://dx.doi.org/10.1038/srep03501>
19. J. Dai, Y. L. Len, Y. S. Teo, L. A. Krivitsky, and B.-G. Englert, "Controllable generation of mixed two-photon states," *New Journal of Physics* 15, 063011 (2013) <http://dx.doi.org/10.1088/1367-2630/15/6/063011>
20. D. A. Kalashnikov, M. V. Fedorov, and L. A. Krivitsky, "Experimental observation of double-peak structure of coincidence spectra in ultrafast spontaneous parametric down-conversion," *Physical Review A* 87, 013803 (2013) <http://dx.doi.org/10.1103/PhysRevA.87.013803>
21. N. Sim, M. F. Cheng, D. Bessarab, C. M. Jones, and L. A. Krivitsky, "Measurement of Photon Statistics with Live Photoreceptor Cells," *Physical Review Letters* 109, 113601 (2012) (Editors' suggestion). Highlighted in *Physics* 5, 103 (2012)
<http://dx.doi.org/10.1103/PhysRevLett.109.113601>
22. D. A. Kalashnikov, S.-H. Tan, T. Iskhakov, M. V. Chekhova, and L. A. Krivitsky, "Measurement of two-mode squeezing with photon number resolving multipixel detectors," *Optics Letters* 37, 2829-2831 (2012) <http://dx.doi.org/10.1364/OL.37.002829>

23. D. A. Kalashnikov, S.-H. Tan, and L. A. Krivitsky, "Crosstalk calibration of multi-pixel photon counters using coherent states," *Optics Express* 20, 5044-5051 (2012)
<http://dx.doi.org/10.1364/OE.20.005044>
24. N. Sim, D. Bessarab, M. Jones, and L. A. Krivitsky, "Method of targeted delivery of laser beam to isolated retinal rods by fiber optics," *Biomedical Optics Express* 2, 2926-2933 (2011)
<http://dx.doi.org/10.1364/BOE.2.002926>
25. D. Kalashnikov, S.-H. Tan, M. Chekhova, and L. A. Krivitsky, "Accessing photon bunching with photon number resolving multi-pixel detector," *Optics Express* 19, 9352-9363 (2011)
<http://dx.doi.org/10.1364/OE.19.009352>
26. D. Kalashnikov, and L. A. Krivitsky, "Spectrally resolved polarization tomography," *New Journal of Physics* 12, 093040 (2010) <http://dx.doi.org/10.1088/1367-2630/12/9/093040>