

Curriculum Vitae

Alexander Lvovsky

Personal data

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Citizenship Canada, Russian Federation
Languages English, Russian (native), German (Oberstufe)
Birth date September 15, 1973

Professional experience

09/2018–present Professor, Department of Physics, University of Oxford.
Leading a wide-profile research program in quantum optics and quantum machine learning.

07/2004–09/2018 Professor, Department of Physics and Astronomy, University of Calgary.
Implemented quantum memory for squeezed light. Developed a method for characterizing quantum-optical processes by measuring their effect on coherent states. Developed engineering of arbitrary single-mode quantum optical states up to the two-photon level. Observed a micro-macro entangled superposition of light states.

09/1999–07/2004 Emmy Noether research group leader (after 01/2002) and Alexander von Humboldt postdoctoral fellow (until 12/2001), Fachbereich Physik, Universität Konstanz, Germany.
Pioneered hybrid discrete- and continuous-variable protocols in quantum optics.

09/1998–09/1999 Postdoctoral fellow, Department of Physics, University of California, Berkeley.
Studied structures of surfaces and interfaces by means of surface nonlinear spectroscopy. Developed theoretical understanding and experimental techniques for measuring the isotropic bulk contribution to the surface signal.

Education

10/1998 Ph. D. in Physics, Columbia University, New York City. Supervisor: S. R. Hartmann.
Discovered and investigated the phenomena of omnidirectional superfluorescence and superfluorescent photon echo.

10/1996 M. A. and M. Phil. in Physics, Columbia University, New York City.

06/1993 B. S. in Physics, Moscow Institute of Physics and Technology.

06/1989 Graduated from School №57, Moscow.

Awards

2015	New Journal of Physics, Outstanding referee commendation
2010	International Quantum Communication Award
2006	Alberta Ingenuity New Faculty Award
2005	Commendation letter from the Prime Minister of Canada
2005	Tier II Canada Research Chair
2002	Emmy Noether research award of the German Science Foundation (DFG)
1999	Alexander von Humboldt postdoctoral fellowship
1993	Faculty fellowship, Graduate school of Arts and Sciences, Columbia University
1988	Third prize, USSR Physics Olympiad

Professional associations and achievements

Fellow, The Optical Society.

Lifetime member, American Physical Society.

Fellow, Canadian Institute for Advanced Research (2005-2019).

Co-founder, start-up enterprise OxONN specializing in optical neural networks

Graduated 6 postdoctoral fellows, 10 PhD and 23 Master students, seven of which are presently in faculty positions across the globe and three more are in leadership research positions in industry and national laboratories.

Research featured by CBC, Daily Mail, MIT Technology Review, NBC, New Scientist, TASS, Wired.

Peer-reviewed journal publications: about 100.

Citations: over 10000 (Google Scholar).

Hirsch index: 51 (Google Scholar).

Erdős number: 3

Publication databases: <https://orcid.org/0000-0003-3165-6654>; <https://publons.com/researcher/2878845/alexander-ivovsky/>

Total external funding secured over past ten years: over \$5 Million.

Total views of popular lectures on *YouTube*: over 500,000.

Professional service

International Advisory Board Member, *Journal of Physics B: Atomic, Molecular and Optical Physics* (2015-2017)

Deputy Editor, *Optics Express*

Oversight Committee Chair, *Quantum-enhanced Interferometry for New Physics* UK Research and Innovation project

Scientific Committee Member, *Russian Quantum Center*

Member, NSERC Strategic Partnership Grants, Information and Communications Technologies Panel (2015-2018)

Member, NSERC Alliance Quantum Evaluation Committee (2022-2025)

Guest Editor, *Journal of Physics B, Special issue on the 20th anniversary of quantum state engineering* (28 May 2013)

Referee for about 20 international research journals including *Science* and *Nature*.

Reviewer for multiple funding organizations, including national basic research funding agencies of *Canada, Chile, Czech Republic, France, Germany, Israel, Russia, South Africa, and USA*.

Conference organization (highlights)

Program Committee Chair, International Conferences on Quantum Technologies (July 2017)

Deputy Chair and Principal Organizer, 21st International Laser Physics Workshop (July 2012).

Principal Organizer, Ninth International Conference on Quantum Communication, Measurement and Computing (August 2008).

Subcommittee Chair, Quantum Optics of Atoms, Molecules and Solids, CLEO QELS 2013.