

# Curriculum Vitae

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**Alexander Lvovsky**

## Personal data

**Address** Department of Physics and Astronomy, University of Calgary, Calgary, Alberta T2N 1N4, Canada  
**Telephone** 403 220 4124  
**Fax** 403 210 8876  
**Email** [LVOV@ucalgary.ca](mailto:LVOV@ucalgary.ca)  
**Web** <http://iqis.org/~lvov>; <http://iqis.org/quantech/>  
**Citizenship** Russian Federation, United States of America; permanent resident of Canada  
**Birth date** September 15, 1973

## Professional experience

**07/2004–present** Professor (after 04/2010) and Associate Professor (until 03/2010), Department of Physics and Astronomy, University of Calgary (Tenure awarded in May 2007).  
*Implemented quantum memory for squeezed light.*  
*Developed a method for characterizing quantum-optical processes by measuring their effect on coherent 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 application of homodyne tomography to highly non-classical states of light, such as photons and optical qubits.*

**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

**2010** International Quantum Communication Award

**2005** Alberta Ingenuity New Faculty award

**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

Lifetime member, American Physical Society.

Member, Canadian Association of Physicists

Member, SPIE

Scholar, Canadian Institute for Advanced Research (Quantum Information Processing Program).

Member of QuantumWorks.

Listed in Who's Who in Science and Engineering.

## Research supervision

**Postdoctoral fellows:** *Björn Brezger* (2002-2003), *Frank Vewinger* (2005-2006), *Anning Zhang* (2006-2008), *Dmitry Korystov* (2007-2008), *Mirko Lobino* (2007-2009).

**Doctoral students:** *Sergey Babichev* (2002-2006), *Jürgen Appel* (2003-2007), *Eden Figueroa* (2003-2008), *Andrew MacRae* (2008-present), *Connor Kupchak* (2007-present).

**M.S. students:** *Thomas Aichele* (1999-2000, co-supervised), *Jonas Ries* (2002-2003), *Andrew MacRae* (2006-2008), *Geoff Campbell* (2007-2009), *Nitin Jain* (2007-present), *Saleh Rahimi-Keshari* (2008-present, co-supervised), *Erick Barrios* (2009-present), *Pantita Palittapongarnpim* (2009-present).

See Teaching Dossier for more information on undergraduate and graduate research supervision.

## Conference organization

**Program committee member**, Tenth International Conference on Quantum Communication, Measurement and Computing (August 2010).

**Program committee member**, Fourth International Conference on Quantum, Nano, and Micro Technologies (February 2010).

**International Advisory Committee member**, Eleventh International Conference on Squeezed States and Uncertainty Relations (June 2009).

**Quantum Optics subcommittee member**, International Quantum Electronics Conference (May 2009).

**Program committee member**, Third International Conference on Quantum, Nano, and Micro Technologies (February 2009).

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

**Program committee member**, Second International Conference on Quantum, Nano, and Micro Technologies (February 2008).

**Local Chair**, QuantumWorks Annual General Meeting (September 2007).

**Local organizing committee member**, 38th annual meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP) of the American Physical Society (June 2007).

**Convener**, Atomic, Molecular and Optical Physics session, Ninth Annual Meeting of the Northwest Section of the American Physical Society (May 2007).

**Program committee member**, Eighth International Conference on Quantum Communication, Measurement and Computing (November 2006).

**Program committee member**, the Quantum Information Processing Program meeting of the Canadian Institute for Advanced Research (May 2006).

**Organizer**, the Quantum Information Processing Program meeting of the Canadian Institute for Advanced Research (December 2005).

**Quantum Optics subcommittee member**, Frontiers in Optics (October 2005).