

Vitaly V. KOCHAROVSKY

Curriculum Vitae

Affiliation: Professor, Department of Physics and Astronomy,
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University Education

1997 - Dr. Habilitation Degree in Physics and Mathematics awarded by the Highest Attestation Commission of the Russian Federation
1986 - Ph.D. in Physics and Mathematics received from the Radiophysical Research Institute (Nizhny Novgorod, Russia)
1978 - M.S. in Physics and Mathematics (with the distinction) received from the Nizhny Novgorod State University, Russia

Academic Experience

2005 - date Professor, Department of Physics and Astronomy, Texas A&M University
2002 - 2005 Associate Professor, Department of Physics, Texas A&M University
2001 - 2001 Visiting Associate Professor, Department of Physics, Texas A&M University
1998 - 2001 Associate Research Scientist, Department of Physics, Texas A&M University
1996 - 1998 Leading Researcher at the Institute of Applied Physics of the Russian Academy of Science (Nizhny Novgorod)
1986 - 1996 Senior Researcher at the Institute of Applied Physics of the Russian Academy of Science (Nizhny Novgorod)
1978 - 1985 Researcher at the Institute of Applied Physics of the Russian Academy of Science (Nizhny Novgorod)

Teaching Activity

Professor, Department of Physics and Astronomy, Texas A&M University:
2005-date "Physics 218" and "Physics 201" undergraduate courses
Associate Professor, Department of Physics, Texas A&M University:
2002-2005 "Physics 201" undergraduate course;
2004 (spring semester) Coordinator of the Physics-201 classes in the Physics Department
Visiting Associate Professor, Department of Physics, Texas A&M University:
2001-2001 "Physics 201" undergraduate course
Associate Professor at Nizhny Novgorod State University:
1988-1989 "Quantum Field Theory" (undergraduate course)
1987-1988 "Modern Problems in Physics" (graduate course)

Membership in Professional Societies

Member of the Optical Society of America (OSA) since 1996
Member of the American Physical Society (APS) since 1999
Elected member of the International Astronomical Union (IAU) since 2000

Synergistic Activities

Member of the International Advisory Committee of the 2nd, 3rd, and 4th International Conferences "Frontiers of Nonlinear Physics" (Russia, July 2004, July 2007, July 2010) and organizer of two FNP-2004 Symposia "Nonlinear Matter-Waves and Bose-Einstein Condensates" and "Nonlinear Processes in Semiconductors", Nizhny Novgorod - St. Petersburg, 5-12 July, 2004.

Organizer of a series of Symposia at the Winter Colloquium on the Physics of Quantum Electronics (Snowbird, Utah):

- "Semiconductor Optoelectronics", January 2005,
- "Semiconductor Optoelectronics", January 2004,
- "Infrared Semiconductor Optoelectronics", January 2003,
- "New Frontiers in Semiconductor Optoelectronics", January 2002,
- "Bose-Einstein Condensation", January 2001.

Member of the Organizing Committee of the 5th International Heidelberg Conf. on Dark Matter in Astro and Particle Physics "DARK2004", Texas A&M Univ., College Station, 5-9 October, 2004.

Member of the Organizing Committee of the Symposium on Observational Cosmology, Texas A&M University, College Station, 11-16 April, 2004.

Organizer of the Symposia at Texas A&M University (together with Prof. M.O. Scully):

- "Quantum Control in Atoms, Molecules, Solids, and Nuclei", 2000,
- "Novel Optical Materials", 1999.

Guest Editor of the chapter "Resonance Phenomena" in the Encyclopedia of Life Support Systems, UNESCO, EOLSS Publishers Co. Ltd., 2001.

1991-1998 Chairman of the Seminar on "Theoretical Physics" at the Institute of Applied Physics of the Russian Academy of Science

1992-1997 Elected member of the Scientific Council of Electronics and Plasma Physics Division, Institute of Applied Physics of the Russian Academy of Science

1985-1986 Chairman of the Advisory Board at the N. Novgorod Lyceum of Physics&Mathematics

Member of the Undergraduate Curriculum Committee at the Department of Physics and Astronomy, Texas A&M University (2003 - date).

Member of the Quantum Optics, Nanophysics, and Astronomy/Cosmology Faculty Search Committees, Department of Physics, Texas A&M University (2004 - 2009).

Member of the Graduate Council Representative on the doctoral student's Advisory Committee, Texas A&M University (2002 - date).

Research Experience

V.V. Kocharovsky has co-authored more than 200 papers in refereed journals and proceedings. He originates from the well-known scientific school of the laureate of the Nobel Prize in physics Prof. V.L. Ginzburg and the member of the Russian Academy of Sciences Prof. V.V. Zheleznyakov. His scientific interests cover a wide range of problems in physics and include physics of semiconductors and nanostructures, optoelectronics and photonics, telecommunications, atomic and molecular physics, quantum and nonlinear optics, quantum electrodynamics including cavity QED, laser physics, fiber optics, theory of superradiance and phase transitions, superconductivity and superfluidity, Bose-Einstein condensation, statistical physics of quantum systems, theory of nonequilibrium, relaxational and decoherence phenomena, quantum field theory, many-body systems and Green's function methods, astrophysics, cosmology, plasma physics, electronics, electrodynamics and propagation of electromagnetic waves in inhomogeneous, anisotropic, active or absorbing media (solids, liquid crystals, gases, plasmas, waveguides).