




Alexey V. Sergeev

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 Russian citizenship, US permanent residency

1974 – 1980	<p>Student of Leningrad (now St. Petersburg) State University, Russia</p> <p>Physics Department. $H\Psi = E\Psi$ Specialized in theoretical physics - quantum mechanics. Diploma thesis supervised by I. V. Abarenkov.</p>
1986	<p>Degree of Candidate of Sciences, Russian equivalent of PhD</p> <p>Leningrad State University, Russia. $H = H_0 + \lambda H_1$ Thesis titled "Development of Analytical Methods of Perturbation Theory for Calculation of Atoms and Ions". Advisor A. I. Sherstyuk.</p>
1980 – 2002	<p>Researcher of S. I. Vavilov State Optical Institute, St. Petersburg, Russia</p> <p> Perturbation theory for atoms in plasma, atoms in strong electric and magnetic fields, $1/n$-expansion in quantum mechanics, theory of Padé approximants. H_0 Collaboration with group of V. S. Popov from ITEP, Moscow. 35 publications, prize of St. Petersburg Physical Society (1993).</p>
Feb. – Aug. 1996 Jan. – Dec. 1997	<p>Research Associate in SMU, Dallas, Texas</p> <p> $1/D$-expansion in atomic and molecular physics, methods of summation. H_0 With D. Goodson, 5 publications.</p>
Sept. – Dec. 1996	<p>Research Associate in University of Oklahoma, Norman</p> <p> $1/D$-expansion for helium, group of D. Watson.</p>
1998 – 1999	<p>Postdoctoral Researcher in Purdue University, West Lafayette, Indiana</p> <p> Transition from bound states to continuum spectrum, stability of atoms with varying nuclear charge, doubly negative ions, with S. Kais, 3 publications.</p>
2000 – 2002	<p>Postdoctoral Researcher in University of the Negev, Beer-Sheva, Israel</p> <p> Radiationless transitions in molecules using phase space representation (method of Wigner functions). Advisor B. Segev, 5 publications.</p>
2003 – 2004	<p>Postdoctoral Researcher in University of Massachusetts Dartmouth</p> <p> Behavior of Møller-Plesset perturbation theory, analysis of the energy function and improving the convergence. Advisor D. Goodson, 4 publications.</p>
2005 until now	<p>Postdoctoral Researcher in Tulane University, New Orleans, LA</p> <p> Development of semiclassical surface hopping methods. H_0 Advisor M. Herman, a study of a specific form of IVR method.</p>
Oct. – Dec. 2005	<p>Visiting Researcher in Cornell University, Ithaca, NY</p> <p> $1/D$-expansion and planetary states of helium; issues of semiclassical theory, group of G. Ezra.</p>