

CURRICULUM VITAE

PERSONAL DATA

Name: Pyatov Pavel Nikolaevich
Date/place of birth: June 23, 1964, Dubna, Moscow Region, USSR
Citizenship: Russia
Languages: Russian, English
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EDUCATION AND DEGREES

1981 - 1987 Diploma degree with distinction (M.Sc.) in theoretical physics, Physical Department,
Moscow State University, Moscow, USSR.
1987 - 1990 Ph.D. study in the Institute for High Energy Physics, Protvino,
Moscow Region, USSR
1991 Candidate of sciences (Ph.D.) in theoretical and mathematical physics.
Thesis: '*Lagrangian Formalism for Constrained Systems*'.
Supervisors: Professors L.D. Soloviev and A.V. Razumov,
Institute for High Energy Physics, Protvino, Moscow Region, Russia

PROFESSIONAL EMPLOYMENT

1990 - 1991 Junior Researcher, Theoretical Division,
Institute for High Energy Physics, Protvino, Moscow Region, USSR
1991 - present Senior Researcher, Bogoliubov Laboratory of Theoretical Physics,
Joint Institute for Nuclear Research, Dubna, Moscow Region, Russia
2008 - present Associate Professor, Faculty of Mathematics,
National Research University - Higher School of Economics, Moscow, Russia

TEMPORARY AND VISITING POSITIONS

01-12/1998 Centre de Physique Théorique, Université Marseille, Luminy. Research fellow.

09/2000-05/2001, 02-06/2005, 11/2007-03/2008

Max Planck Institute for Mathematics, Bonn. Visiting professor.

Research visits for the periods from 2 weeks to 2 months

Physikalisches Institut der Universität Bonn (1999, 2001-10 each year); School of Mathematics and Statistics, the University of Sydney (2010); Erwin Schrödinger International Institute for Mathematical Physics, Vienna (2008); Bergische Universität Wuppertal (2006-08, each year); Department of Mathematics and Statistics, University of Melbourne (2005,2007,2010); Université Valenciennes (2004,2007,2009); CERN Theoretical Division, Geneva (1996,2001,2004,2007); Section de mathématiques, University of Geneva (2005); Bielefeld University (1997); Werner Heisenberg Institut, Munich (1994, 1995).

PARTICIPATION IN CONTINUING RESEARCH PROJECTS

- Joint German-Russian research project, grant RFBR-DFG 07-02-91561 (2007-2010)
"New models of integrable stochastic many-particle systems". Coorsinator.
- Grant of the Russian Foundation for Basic Research (RFBR) 11-01-00980 (2011-13)
"New algebraic methods in quantum physics". Coorsinator.
- Joint French-Russian research project, grant RFBR-CNRS 09-01-93107 (2009-2011)
"Combinatorial algebraic and geometric methods for investigations of the integrable systems". Participant.

OTHER PROFESSIONAL ACTIVITIES

- Supervision of the students (MIPT, Moscow, 2002 and 2008; NRU HSE, Moscow, 2009-11) and of the PhD fellow (PhD degree in Theoretical Physics, IHEP, Protvino, 1997).
- Organization of a series of international conferences '*Classical and Quantum Integrable Systems*', Dubna-Protvino-Chernogolovka 2004-2011, each year.
- Referee for Communications in Mathematical Physics, Journal of Physics A, Journal of Statistical Mechanics (JSTAT), Journal of Mathematical Physics, Theoretical and Mathematical Physics, Symmetry, Integrability and Geometry: Methods and Applications (SIGMA).

MAIN SCIENTIFIC RESULTS

- Derivation of a q -version of the Cayley-Hamilton theorem and investigation of a structure theory of the quantum matrix (super)algebras $GL_q(m|n)$, $O_q(n)$ and $Sp_q(2n)$ (jointly with D.I. Gurevich, A.P. Isaev, O.V. Ogievetsky and P.A. Saponov).
- Construction of de Rahm complexes for the quantum linear groups $SL_q(n)$. Construction of a spectral extension of the quantized algebra of functions on a cotangent bundle over $SL(n)$ (jointly with L.D. Faddeev and A.P. Isaev).
- Investigation of combinatorial properties of stationary distributions for integrable stochastic models ($O(1)$ loop models, raise and peel models). Investigation of related solutions of the quantum Knizhnik-Zamolodchikov equation and the discrete Hirota equation (jointly with J. de Gier, P. Zinn-Justin and V. Rittenberg).

RESEARCH INTERESTS

- Integrable models: spin chains, integrable stochastic models, dynamical models over quantum group cotangent bundles.
- Differential geometry of the quantum groups. Structure theory and representations of the quantum matrix algebras.
- Braid group and related finite dimensional quotient algebras: Hecke, Temperley-Lieb and Birman-Murakami-Wenzl algebras, their structure theory and R-matrix representations.
- Topics in algebraic combinatorics: alternating sign matrices, plane partitions, bilinear recurrences. Related solutions of the quantum Knizhnik-Zamolodchikov and the discrete Hirota equations.