

Curriculum Vitae

Dimitry A. Leites

Personal data

office: Department of Mathematics, Stockholm University
Roslagsv. 101, Kräftriket hus 6, SE-106 91, Sweden
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Languages: Russian (native), English, Swedish, French

Education

B.A., 1970 Mathematics and French, Lenin Pedagogical Institute, Moscow
M.A., 1975 Mathematics and English, Moscow State University (Thesis:
“Cohomology of Lie superalgebras”, Sci. advisor A. Onishchik)
Ph.D., 1981 Mathematics, Steklov Mathematical Institute, Moscow.
(Thesis: “Character formulas for Lie superalgebras”, Sci. advisor Yu. Manin).

Research speciality: supermanifold theory and applications of differential and algebraic geometries in mathematical physics. In particular: differential geometry, representation theory, integrable systems of mathematical physics, computer-aided computation of cohomology (applications: from invariant operators to curvature tensors), nonholonomic systems (from market economy to supergravity).

Publications:

Books and chapters in books: 3 (in preparation: 5), edited: 6 (in preparation: 7), translated: 13 (in preparation: 1).

Papers in refereed journals, proceedings or collections: 104 (in preparation: 6).

Articles in Encyclopedias: 27.

Positions

1968–73 teacher of mathematics in Moscow school no.7 (specialized in mathematics)
1975–83 Scientific staff member, Department of Mathematics,
Karelia Branch of the USSR Academy of Sciences, Petrozavodsk, USSR
1975–76 (concurrently) Lecturer, Department of Physics and Mathematics,
Petrozavodsk University, USSR
1976–82 (concurrently) Scientific staff member and Ph.D. student, Steklov
Mathematical Institute, Moscow, USSR
1982 (concurrently) Docent (Associate Professor), Department of
Physics and Mathematics, Yaroslavl University, USSR
1984–85 Docent (Assoc. Prof.), Moscow Institute for Railway Engineers, USSR
1986 research assistant, Department of Mathematics, University of Stockholm, Sweden
1987–now Professor, Department of Mathematics, Stockholm University
1991–2001 (concurrently) head of the laboratory “Supersymmetry theory”,
Inst. of New Technologies of Education, Moscow, Russia
2006–now (concurrently) Foreign Expert, A. Salam School of Mathematical Sciences,
GC University, Lahore, Pakistan

Visiting professorships

1986, 1988 CWI (Center for Mathematics and Computer Science), Amsterdam, The Netherlands;

1988–2003 (almost every summer) IHES, Bures-sur-Yvette, France;

1987 Harvard University, Cambridge, USA

1988, 2002 Max-Planck-Institute for Mathematics, Bonn, Germany;

1988 Wayne State University, Department of Mathematics, Detroit, USA (distinguished professor)

1989 visiting member 8 months, IAS, Princeton, USA

1990 SFB-170, Göttingen, Germany; Euler Math. Inst. and LOMI, Leningrad, USSR

1991–92 **Forchheimer Professor**, Hebrew Univ. of Jerusalem, Bar Ilan Univ. and Tel Aviv University, Israel

1994, 1995 Beijing University, Beijing, P.R.China

1995 Hanoi University and Hanoi Institute of Mathematics

2000, 2001 Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria

2004–06 **Sophus-Lie-Professor**, Max-Planck-Institute for Mathematics in Sciences, Leipzig

2007 A. Salam School of Mathematical Sciences, Lahore, Pakistan

2012 School of Mathematical Sciences, University of Science and Technology of China (USTC) Hefei, Anhui, P.R. China

Invited addresses and lectures:**International conferences and schools on group-theoretical methods in physics:**

Bulgaria 1976, 1980, 1984, 1987

Finland 1991 (Turku)

Italy 1990 (Rapallo), 1991 (ICTP)

USA 1989 (NATO ASI, lake Tahoe)

USSR: 1983 (Zvenigorod), 1985 (Yurmala, Kharkov), 1990 (Euler IMI) Dubna (Joint Institute for Nuclear Research) and Protvino (Institute for High Energy Physics) yearly since 1975 till emigration in 1986; 1994, 1997, 98, 99, 2000

Symmetries and quantum symmetries (SQS) Dubna-1997, 99, Karpacz-2001

Ukraine 2000 (ARW NATO, 2000)

International conferences in mathematics (plenary or key-note talks):

USSR (International Conferences on Algebra) 1989 (Novosibirsk); 1991 (Barnaul)

Mexico (Internatnl. Symp. Complex Analysis and related topics) 1996

Finland (Topological methods in physics), Czechoslovakia 1997

USA (Special Invited Lecture at NATO ASI Special Functions-2000)

Sweden (Marcus Wallenberg Symposium in memory of S. Kovalevski), 2000

Hong Kong (Summer School/Seminar in Applied Analysis, 2001)

Tunisia; Pakistan 2006

3rd International Conference on 21st Century Mathematics, Lahore, Pakistan, 2007

Memorial University of Newfoundland Atlantic Algebra Centre, Canada (2008)

Lie and Jordan Algebras, Belem, Brazil (2012)

Lie and Jordan algebras, their representations and applications-V. Sao Paulo, Brazil (2012)

Groups, Rings and Group Rings, Ubatuba, Brazil (2012)

Grants and sponsored programs. Awards

I. Bendixson grant, Sweden, 1986–1988

Svante Maria Arrhenius' fond, Sweden, 1992;

Swedish Institute, 1992–93 (two 9-month-long grants for guest-researchers)

USA NSF grants: 1987 Research assistant at Harvard University; 1989, Institute for Advanced Study

Distinguished Professor at Wayne State University, 1988

Naturvetenskapliga forskningsrådet (NFR) (Swedish National Science Foundation) 1988–2000 (NFR does not exist any longer)

German Sonderforschungsbereich-170, Göttingen, 1990 (together with 2 former Ph.D. students)

Oberwolfach, 1990

Teknikbrostiftelsen i Stockholm (Foundation for Cooperation between Universities and Small Enterprises in Stockholm), 1999/2000 (symmetries of business processes); 2001/02 (solubility of differential equations and stability of their solutions) both grants covered also a research student.

Sophus-Lie-Professorship, Max-Planck-Institute for Mathematics in Sciences, Leipzig, Germany, 2004–06

Master theses supervised

1977 A. Shapovalov, Irreducible representations of Hamiltonian Lie superalgebra, Moscow University

1978 S. Eliseev, Irreducible representations of Lie superalgebra $q(2)$, Moscow University

V. Shander, Normal forms of vector fields on supermanifolds, Moscow University

P. Grozman, Invariant differential operators, Moscow University

E. Korkina, Gelfand–Tsetlin basis for irreducible representations of $\mathfrak{gl}(2|2)$, Moscow University

1979 A. Vaintrob, New invariant differential operators, Moscow University

A. Kut'in, Noncommutativity of the superalgebra of complex numbers and consequences, Moscow University

1980 Yu. Shmelev, Irreducible representations of infinite dimensional Hamiltonian Lie superalgebra, Moscow University

A. Sergeev, Invariant polynomials on Lie superalgebras, Moscow University

1981 V. Serganova, Automorphisms and real forms of finite-dimensional Lie superalgebras, Moscow University

E. Poletaeva, Affine actions of stringy superalgebras, Moscow University

1983 L. Tsalenko, Witt's formula for free Lie superalgebra, Moscow University

1985 M. Finkelberg, Super Brauer group, Moscow Institute for Oil and Gas Industry

1998 A. Szabo and G. Toth-Wesseley, Valda problem från Moskvas matematiska olympiader (Selected problems of Moscow Mathematical Olympiads), fdk, 20 poäng; C. Bergelund, pk, 10 poäng, Stockholm University

2009 M. Chapovalov, Explicit growth functions of the Coxeter groups of Lannér and quasi-Lannér type. 30 poäng, Stockholm University

Ph.D. theses supervised (with selected addresses of former students)

1979 A. Shapovalov, (co-advisor: A. Kostrikin) Irreducible representations of finite dimensional Hamiltonian and Poisson Lie superalgebras, Dept. of Math., Moscow University (Equa Simulation AB, Stockholm; sasja@shap.homedns.org)

1983 Yu. Shmelev, (co-advisor: A. Kirillov) Irreducible representations of infinite dimensional Hamiltonian and Poisson Lie superalgebras, Dept. of Math., Moscow University

P. Grozman, Invariant differential operators, (co-advisor: V. Palamodov) Dept. of Math., Moscow University (Equa Simulation AB, Stockholm; pavel.grozman@bredband.net)

A. Sergeev, Invariant polynomials on Lie superalgebras, (co-advisor: A. Kirillov) Dept. of Math., Moscow University

1986 Yu. Kochetkov, Differential operators invariant with respect to Lie superalgebras preserving odd canonical form, (co-advisor: A. Onishchik) Dept. of Math., Leningrad University

1987 A. Vaintrob, Deformations of complex structures on supermanifolds, (co-advisor: Yu. Manin) Dept. of Math., Moscow University

1988 V. Serganova, Automorphisms and real forms of simple Lie superalgebras, (co-advisor: A. Onishchik) Dept. of Math., Leningrad University (UC Berkeley, USA, serganov@math.berkeley.edu)

V. Shander, Vector fields and differential equations on supermanifolds, (co-advisor: S. Gindikin) Dept. of Math., Voronezh University, Russia

1991 A. Stolin, Rational solutions of the classical Yang-Baxter equation, (co-advisor: V. Drinfeld) Dept. of Math., Stockholm University

G. Vinel, Symmetric superdomains and Lie triple systems, (co-advisor: W. Abikoff) Dept. of Math., University of Connecticut (Dept. of Math., Université Joseph Fourier, Gerard.Vinel@ujf-grenoble.fr)

1992 E. Poletaeva, The local structure of classical superdomains. (co-advisors: A. Onishchik, J.-L. Brylinsky), Dept. of Math., Penn. State University (elenap@utpa.edu)

2002 I. Bider, State-Oriented Business Process Modeling — Principles, Theory and Practice, (co-advisor: P. Johansson) Dept. of Computer and System sciences, University of Stockholm and Royal Inst. of Technology. (Director of R&D; ilia@ibissoft.se)

2008 A. Lebedev, Simple modular Lie superalgebras, (co-advisor: J. Jost) Dept. of Mathematics, University of Leipzig. (Equa Simulation AB, Stockholm; yorool@mail.ru)

2010 P. Zusmanovich, Low-dimensional cohomology of current Lie algebras, Dept. of Math., Stockholm U. (justpasha@gmail.com)

Membership Moscow Mathematical Society.

Editorial board Journal of Nonlinear Mathematical Physics.