

ALEXANDRE A. KIRILLOV

Professor of Mathematics, University of Pennsylvania Philadelphia, PA
19104-6395

Born May 9, 1936, Moscow USSR

Education: Master's Degree - Moscow State University, 1959 Doctor of
Science - Moscow State University, 1962

Professional experience:

Moscow State University, Professor of Mathematics 1965-1995

Keldysh Institute of Applied Mathematics, Member 1965-1987, 1989-
1990

Independent Moscow University, Professor of Mathematical College 1991-
1995

Institute for Problems of Information Transmission Russian Academy of
Sciences, member 1995-present.

Visiting positions:

IHES, Bures-sur-Yvette, (France) May 21 -July 19 2007

University of California, San Diego, January 2005

Caltech, Pasadena, February 2005

MSRI, Berkeley, May-June 2002, visitor

IHES, visitor, June 2000 and 2001

Max Planck Institute, Bonn, July-August 2000 and 2001

Miller Professor at UC Berkeley Spring 1999

University of Pennsylvania Professor 1993-94

Hamburg University Visitor June 1993

University of New South Wales Visitor June 1992

University of Pennsylvania Professor Spring 1992

University of Maryland Professor Fall 1990

IHES and University Paris-6,7 Visitor Spring 1989

Awards:

Francis J.Carey Term Professor in Mathematics 1997-2002.

"Orbit method in Geometry and Physics", a Conference in Honor of
A.A.Kirillov, CIRM-CPT, Marseilles, Dec. 04-08, 2000.

Miller Professor at UC Berkeley Spring 1999

Elected to membership in the Russian (formerly Soviet) Academy of
Natural Sciences (1990).

The Prize of Moscow Mathematical Society for young mathematicians
1966. Three invited lectures at the International Congresses of Mathemati-
cians: 1962 (Stockholm), 1966 (Moscow), 1978 (Helsinki)

Invited talks:

Colloquium talk at Kent University, March 15 2009, “Family algebras and miraculous Deligne family.”

Colloquium talk at Rutgers University, April 11, 2008. “Generalized exponents for fundamental representation of B_n .”

Colloquium talk at PennState University, March 20, 2008. “Family algebra for the spinor representations of groups of type B_n ”

An invited talk on the conference dedicated to the 70-th anniversary of Ernest B. Vinberg. “Generalized exponents for fundamental representation of B_n and Family algebras”. December 17 - 22, 2007, Moscow, Russia

Colloquium talk at ITTP RAS, Moscow, December 15, 2007. ”New objects in Representation theory”.

Invited talk at “Journée Solstice”, Paris, Ecole Normale 22 June 2007.

Colloquium talk at the University of Reims. “The orbit method and quantization”, May 29, 2007.

Participation at the Workshop at AIM, March 25 -March 31 2007, Palo Alto.

Colloquium talk at Temple University, Jan. 29, 2007. Introduction to my new book “A tale of two fractals (a small book for mathematical toddlers)”.

Invited talk at the Annual meeting of AMS, 5-8 Jan 2007, New Orleans. Special Session, honoring the memory of George Mackey. “Some thoughts about G.W.Mackey and his imprimitivity theorem”.

Invited talk at the Ya. G. Sinai Seminar on Ergodic theory, Princeton, 21 Oct 2004

Colloquium talk at Princeton University 20 Oct 2004

Mini-course at the Summer School for winners of All-Russian mathematical Olympiad, Dubna, Russia, 21 - 24 July 2004

Talk at E.B.Vinberg Seminar at Moscow state University June 2004 Representation Theory, Dynamical Systems, and Asymptotic Combinatorics,

Conference dedicated to to 70-th birthday of Professor Anatoly Vershik, St. Petersburg June 2004

Modern Analysis, Conference in Honor of 250-th Anniversary of Moscow state University, Jerusalem, 1-8 June 2004

Colloquium talk, University of Wisconsin, Madison, Oct 19, 2003

Colloquium talk, University of Michigan, Ann Arbor, Oct 29, 2002 The 16-th Harry E. Valentino Lecture, Kansas State University, Manhattan, KS, March 14, 2002

”Fundamental Mathematics Today”, a conference dedicated to the 10-th Anniversary of the Independent Moscow University, Dec 26-29 2001.

Introductory Lectures to the Program "Infinite-dimensional Lie groups",
 CRM, Montreal, Canada, October - November 2001.
 The Myhill Lectures, SUNY at Buffalo, March 2001
 The orbit method in Geometry and Physics, a Conference in Honor of
 A.Kirillov, CIRM-CPT, Marseilles, Dec. 4-9 2000.
 Two invited lectures, IMU, Moscow August 1999
 Lecture course in Summer School, Marseilles July 1999
 Colloquium talk, Cambridge, UK April 1999
 Colloquium talk, UC Berkeley February 1999
 Colloquium talk, ITEP, RAN, Moscow August 1997
 Workshop Symplectic geometry, Utah July 1997
 AMS meeting at College Park, Maryland April 1997
 Colloquium talk, University of Utah March 1997
 Colloquium talk, ITEP, RAN, Moscow July 1996
 Erwin Schroedinger Institute, Austria June 1996
 A conference in Honor of A.Guichardet, Ecole Polytechnique, Palaiseaux,
 France May 1996
 Mini-conference Group representation and Mathematical physics, the
 University of Iowa March 1996
 Colloquium talk, University of Arizona March 1996
 Franco-Belge Symposium, Rheims, France June 1995
 Conference on symplectic geometry, MIT May 1995
 Isaac Newton Institute, Cambridge, UK November 1994
 Journee Solstice, Paris, France June 1994
 Sophus Lie Memorial Week Oslo August 1992
 A.D. Sakharov Memorial Conference Moscow July 1991
 Rademacher Lectures Philadelphia November 1990
 I. Schur Memorial Lectures Tel Aviv May 1990
 Colloquium in honor of J.Dixmier Paris May 1989
 Conference on Orbit Method in Representation Theory Copenhagen
 September 1988
 XVI Summer School on Group Theoretical Methods in Physics, Varna
 September 1987
 International Congresses of Mathematicians:
 Stockholm 1962
 Moscow 1966
 Helsinki 1978
 Professional Memberships:
 Moscow Mathematical Society Member of Committee 1975-96, vice-
 President 1992-96

Advisory Committee of the Erwin Schroedinger Institute, Vienna, Austria, 1997-2003

Editorial Boards:

Functional Analysis and Applications, Chief editor 1988-96,
Member 1967- present

Mathematical Receuil, Member 1965-1973

Inventiones Mathematicae, Member 1979-1991

Letters in Mathematical Physics, Member 1979- present

Selecta Mathematica (formerly) Sovietica, Member 1981-1995

Electronic Research Announcements of AMS, Member 1995-2005

Algebras and Representation Theory, Member 1997- present

Books:

"Elements of the Theory of Representations" (Russian Editions 1972, 1978; French Edition 1974, English Edition 1976).

"Theorems and Problems of Functional Analysis" (with .D. Gvishiani; Russian Editions 1979, 1988, French Edition 1982, English Edition 1982, Italian Edition 1983, Hungarian Edition 1985).

"Non Commutative Harmonic Analysis" (Russian Edition VINITI, Itogi Nauki, vol. 22 1988; English Edition: Encyclopedia of Mathematical Sciences, vol. 22, 1993).

"What is number?" Moscow, 1993 (In Russian).

"Lekcii po metodu orbit" Moscow, 2001 (In Russian).

"Lectures on the orbit method, AMS, Providence, RI, 2004.

"A tale of two fractals" (in Russian), Edition NMU, March 2008.

Research interests: Theory of Group Representations, Differential Geometry, Mathematical Physics.