

CURRICULUM VITAE
ASKOLD KHOVANSKII
April 2011

A. BIOGRAPHICAL INFORMATION

1. PERSONAL

Born: June 3, 1947, Moscow, USSR

Address: Department of Mathematics
University of Toronto
Toronto, ON. M5S 3G3

Phone: (416) 978-4868

2. EDUCATION:

Russian Doctoral degree – 1988, “Newton Polyhedra and fewnomials”,
Steklov Mathematical Institute, Moscow

Ph.D. – 1973, “Representability of functions
in quadratures”,
Steklov Mathematical Institute, Moscow

Graduate Studies – 1970-1973, Computer Center of the Academy
of Sciences of the USSR

M.S. – Moscow State University, 1970

3. ACADEMIC POSITIONS:

Since 1996 – Full Professor at the University of Toronto, Canada

Since 1976 – Institute for System Studies
of the Academy of Sciences of Russia
Main scientific staff member,
member of Scientific Committee

Since 1991 – Professor of the Moscow Independent University

1995, January - June – Visiting Professor, University of Toronto, Canada

1994, January - June – Visiting Professor, University of Toronto, Canada

1993, January - June – Visiting Professor, University of Minnesota, USA

1992, July – Visiting Professor, University Paris-7, France

1992, March – Visiting Professor, University of Maryland, USA

1992, February – Visiting Professor, University of Bern, Switzerland

1992, January – Visiting Professor, Mittag-Leffler Institute, Sweden

1991, April – Visiting Professor, University Paris-7, France

1991, May – Visiting Professor, University of Dijon, France

1991, June – Visiting Professor, Ecole Polytechnic, France

- 1990, April – Visiting Professor (Distinguished Ordway visitor),
University of Minnesota, Twin Cities, USA
- 1990, March – Scholar, Harvard University, USA
- 1981, spring – Visiting Professor, IHES, Bures-sur-Yvette, France
- 1973 -1976 – Institute of Applied Mathematics of the Academy
of Sciences of the USSR,
Junior scientific staff member

B. ACADEMIC HISTORY

4. MEMBERSHIP:

Moscow Mathematical Society
 American Mathematical Society
 Boarding Committee of Moscow Mathematical Society
 Scientific Committee of the Independent Moscow University
 Boarding Committee of the Journal “Functional Analysis and
 Other Mathematics”
 Editorial Board of the Moscow Mathematical Journal
 Editorial Board of the PHASIS Publishing House
 Editorial Board of the Russian Mathematical Surveys

5. MISCELLANEOUS:

- 1978 A short talk at the International Congress of Mathematicians
Helsinki, Finland
- 1984 A meeting of Bourbaki’s seminar (France) was devoted to
Khovanskii’s theory of fewnomials
- 1991–1994 Member of Boarding Committee of the
“The Selecta Mathematica Sovietica”
- 1994–2005 Member of Boarding Committee of the
“Functional Analyzes Its Applications”
- 1997 Member of Organizing Committee Singularity Theory and
Geometry Program at the Fields Institute
- 1997 Member of Organizing Committee of Conference in Honor of
Vladimir Arnol’d at the Fields Institute
- 1997 Member of Organizing Committee of workshop on Geometry
and Complexity at the Fields Institute
- 2002 Member of Organizing Committee of workshop on “Computational
Algebraic Geometry” (Third International Meeting of
Foundations of Computational Mathematics in Minneapolis)
- 2003 Member of Scientific Programme Committee of the
International Scientific Conference “New Geometry and Nature”,
Kazan, Russia
- 2003 Chairman of Organizing Committee of International Conference
“Hilbert’s Sixteenth and Related Problems in

Dynamics, Geometry and Analysis (In honor of the 60-th anniversary of Yulij Sergeevich Ilyashenko), Moscow, Russia

- 2005 Jury member of the Pierre Deligne contest
- 2006–2008 Jury member of the Pierre Deligne and Dinastia contest
- 2006–2007 Member “Math in Moscow Scholarship Selection Committee”. AMS
- 2007 Member of Organizing committee of International Conference
Analysis and Singularities
- 2007–2008 Chair of “Math in Moscow Scholarship Selection Committee”. AMS
- 2007 Two issues of the Moscow Mathematical Journal (V. 7, NN 2–3) were
dedicated to Askold Georgievich Khovanskii on the occasion
of his 60th birthday
- 2008–2009 Member “Math in Moscow Scholarship Selection Committee”. AMS
- 2008–2009 Consultant of Committee on Translations from Russian and Other
Slavic Languages. AMS
- 2009 Member of Organizing committee Workshop on Complexity of
Numerical Computation (Thematic Program on the Foundations
of Computational Mathematics), Fields Institute, Toronto.
- 2010 Jury member of the Dinastia contest
- 2011 Member of the Program Committee of the Conference
Polynomial Computer Algebra’2011
Jury member of the Simons contest
Jury member of the Dinastia contest
Member of Organizing committee of Mini-Workshop: New Developments
in Newton-Okounov Bodies. Oberwolfach, Germany.
- 2012 Member of the Program Committee of the Conference
Polynomial Computer Algebra’2012

C. SCHOLARLY AND PROFESSIONAL WORK

6. INVITED TALKS:

a. General meetings

- 1975 Sessions of Moscow Mathematical Society
- 1978 Sessions of Moscow Mathematical Society and Petrovsky Seminar
- 1979 Sessions of Moscow Mathematical Society
Sessions of Moscow Mathematical Society and Petrovsky Seminar
- 1980 Sessions of Leningrad Mathematical Society
- 1981 Sessions of Moscow Mathematical Society and Petrovsky Seminar
- 1982 Sessions of Moscow Mathematical Society
- 1983 International Congress of Mathematicians in Warsaw
- 1984 Sessions of Moscow Mathematical Society
- 1986 Sessions of Leningrad Mathematical Society
Sessions of Moscow Mathematical Society and Petrovsky Seminar
- 1990 Sessions of Moscow Mathematical Society
Sessions of Moscow Mathematical Society and Petrovsky Seminar

1991	Congress of Singularities, France
1994	Sessions of Moscow Mathematical Society
1995	Sessions of Moscow Mathematical Society Conference of Canadian Mathematical Society, Toronto
1996	Sessions of Moscow Mathematical Society
1997	Sessions of Moscow Mathematical Society
1998	Conference of Canadian Mathematical Society, Kingston
2002	Sessions of Moscow Mathematical Society Conference of Canadian Mathematical Society, Ottawa
2004	Sessions of Moscow Mathematical Society
2005	Incorporating 57th British Mathematical Colloquium 47th & British Applied Mathematics Colloquium, Liverpool, UK
2007	Sessions of Moscow Mathematical Society
2008	Sessions of Moscow Mathematical Society
2010	Joint meeting of the St.Petersburg Mathematical Society & the Section of the House of Scientists. St.Petersburg, Russia.
2011	Sessions of Moscow Mathematical Society

b. Lectures Series

2010	Summer school “Modern Mathematics”, Dubna, Russia.
2009	Thematic Program on the Foundations of Computational Mathematics, Fields Institute, Toronto, Canada
2009	Université Paris-Sud 11, Orsay, France
2007	Independent Moscow University, Russia
2006	Summer school “Modern Mathematics”, Dubna, Russia.
2003	Independent Moscow University, Russia
2002	RIMS, Kyoto University, Japan
2002	Saitama University, Japan
2001	RIMS, Kyoto University, Japan
2001	Independent Moscow University, Russia
2000	University of Valladolid, Spain
1999	L’IRMA, University Louis Pasteur, Strasbourg, France
1998	Independent Moscow University, Russia
1997	Fields Institute, Toronto, Canada
1996	Mathematical Sciences Research Institute, Berkeley, CA, USA
1995	Stefan Banach International Center, Warszawa, Poland University of Toronto, Canada
1994	University of Toronto, Canada Institute of Fourier, Grenoble, France Independent Moscow University, Russia
1993	Independent Moscow University, Russia University of Minnesota, USA
1992	University of Bern, Switzerland
1991-92	Moscow State University, Russia

1990 University of Minnesota
 1990-91 Moscow State University, Russia
 1988 XIII All-Union School on the Operator Theory
 in Functional Spaces
 1979 Winter Mathematical School, Voronezh, Russia
 1984 Moscow State University

c. Invited lectures

1967-2010 Arnold's seminar on singularity theory, Moscow
 1972-1988 Seminar on Algebraic Geometry, Steklov Institute, Moscow
 1972 Topological Conference, Tbilisi, Georgia
 1979 All-Union Conference, Baku, Azerbaijan
 1981 Rene Tom's seminar, IHES, France
 1981, 1987 Winter Mathematical School, Voronezh, Russia
 1988 Courant Institute, NY University, USA
 MIT, USA
 1989 Siberian School on the Algebra and Analysis Baikal, Russia
 1990 Harvard University, USA
 Rice University, USA
 MIT, USA
 1990 Siberian School on the Algebra, Tomsk, Russia
 1991 Michael Gromov's seminar, IHES, France
 Utrecht University, The Netherlands
 Twent University, The Netherlands
 1992 Cornell University, USA
 Rice University, USA
 Stanford University, USA
 University of North Carolina, USA
 Uppsala University, Sweden
 Scola Normala Superiora, Pisa, Italy
 MIT, USA
 1993 University of Toronto, Canada
 1994 University of Montreal, Canada
 University of Pisa, Italy
 1995 Seminar on Combinatorial analysis, Steklov Institute, Moscow
 Institute of Applied Mathematics, Moscow
 Ecole Normale Superieure, France
 University Paris 11, France
 University of Bordeaux, France
 University of Toronto, Canada
 Michael Gromov's seminar, IHES, France
 Seminar on Algebraic Geometry, Steklov Institute, Moscow
 1996 Nelson lecture, McMaster University, Hamilton, Canada
 Institute of Applied Mathematics, Moscow

- Seminar on Numbers Theory, Steklov Institute, Moscow
Seminar on Control Theory, Department of Computer Sciences,
MSU, Moscow
- 1997 Workshop on Model Theory of Analytic Functions, Fields Institute,
Toronto
Workshop on Geometry and Complexity, Fields Institute, Toronto
Conference in Honor of Vladimir Arnol'd, Fields Institute, Toronto
- 1998 Weizmann Institute of Science, Rehovot, Israel
Technion, Haifa, Israel
International Conference “Solitons, Geometry and Topology:
On the Crossroads”, Steklov Institute, Moscow
- 1999 Colloquium, University of Toronto, Canada
City University of Hong Kong, Hong Kong
Colloquium, L'IRMA, University Louis Pasteur, Strasbourg, France
- 2000 Colloquium, Instituto de Matematicas - UNAM, Mexico City, Mexico
Instituto de Matematicas - UNAM, UNIDAD Cuernavaca, Mexico
Universidad de Complutense, Madrid, Spain
Seminario Iberoamericano de Singularidades en Tordesillas, Spain
International Conference on Foundation of Computational Mathematics
Celebrating Smale's 70th birthday, City University of Hong Kong
- 2000–2001 General seminar “Globus”, the Independent Moscow University,
Moscow, Russia
- 2001 Workshop on “Combinatorial Convexity and Algebraic Geometry”,
Mathematisches Forschungsinstitut Oberwolfach, Germany
Sergey Novikov's seminar, University of Maryland, USA
Algebraic geometry seminar, Saitama University, Urawa, Japan
Kinki University, Higashi-Osaka, Japan
International Conference Monodromy in Geometry and Differential
Equations Steklov Mathematical Institute, Moscow, Russia
Summer school “Modern Mathematics”, Dubna, Russia
Colloquium, Cornell University, Ithaca, USA
International Conference “Fundamental mathematics today” Dedicated the
10th Anniversary of the Independent University of Moscow, Russia
Seminar on Algebraic Geometry, Steklov Institute, Moscow, Russia
“Malyi Mehmam”, Moscow State University, Russia
- 2002 Joint colloquium for the 4 mathematics departments in the city,
Montreal, Canada
International Conference “ Differential Equations and
Dynamical Systems”, Suzdal, Russia
Algebraic Geometry Seminar, Saitama University, Japan
Mathematical Institute, Tohoku University, Sendai, Japan
Seminar on Grothendieck residues, Saitama University, Japan
Vinberg's seminar, Moscow State University, Russia
Mathematical Institute, St.Peterburg, Russia

- 2003 Institute for System Studies, Moscow, Russia
 Anosov-Bolibrukh's Seminar, Mathematical Institute, Moscow, Russia
 Workshop Commutative Algebra and Geometry, BIRS, Banff Center, Canada
 International Conference "Kolmogorov and Cotemporary Mathematics",
 Moscow State University, Moscow, Russia. Plenary Speaker.
 International Scientific Conference "New Geometry and Nature", Kazan, Russia.
- 2004 Colloquium, University of Toronto, Canada
 International Conference "The Coxeter Legacy: Reflections and Projections"
 The Fields Institute, Toronto, Canada
 International Conference "Representation theory, Dynamical systems,
 and asymptotic combinatorics, St. Petersburg, Russia
- 2005 CRM-ISM de mathematiques Colloquium, Montreal
 Hull Institute for Mathematical Sciences and Applications (HIMSA)
 University of Hull, Hull, UK
 Seminars at the Department of Mathematics, Cardiff University, Cardiff, UK
 Pure Seminar, the Department of Mathematics, University College, London, UK
 COW seminar (Cambridge–Oxford–Warwick Algebraic Geometry seminar)
 Cambridge, UK
 Mathematical Institute University of Oxford, Oxford, UK
 International Conference on Foundations of Computational Mathematics,
 Workshop on Computational Algebraic Geometry,
 Santander, Spain.
 Seminar "Characteristic classes and the theory of intersections",
 Independent Moscow University, Moscow, Russia
 Geometry and Model Theory Seminar, University of Toronto, Canada.
- 2006 International Conference on Toric Topology, Osaka City University, Japan.
 International Conference on Differential Equations and
 Dynamical Systems, Suzdal, Russia.
 Joint RFBR–JSPS Symposium, Moscow Session, "Geometry and Analysis
 on Complex Algebraic Varieties", Moscow, Russia.
 Department of Computer and Mathematical Sciences, UTSC, Toronto.
 Dynamical systems seminar, University of Toronto.
- 2007 Wilfrid Laurier University, Waterloo.
 Institute for System Studies of the Academy of Sciences
 of Russia, Moscow, Russia.
 North American Workshop on Tropical Geometry. Banff
 International Research Station, Banff, Canada.
 Parshin's Seminar, Steklov Institute, Moscow, Russia.
 Seminar Riemann Surfaces, Lie Algebras and Vath. physics.
 Independent Moscow University, Moscow, Russia.
 International Conference on the occasion of the 150th birthday
 of Aleksander Mikhailovich Lyapunov. Kharkiv, Ukraine.
 Plenary speaker (2 talks).
 International conference "Analysis and Singularities", dedicated to

- the 70th anniversary of Vladimir Igorevich Arnold. Steklov
Mathematical Institute, Moscow, Russia. Plenary speaker.
- 2008 Seminar Algebra and Geometry. University of Toronto.
Undergraduate Student Seminar. University of Toronto.
Workshop Enumeration and Bounds in Real Algebraic Geometry.
Centre Interfacultaire Bernoulli (Ecole Polytechnique Federale
de Lausanne), Lausanne, Switzerland.
Workshop on Effective real analytic geometry, ICMS, Edinburgh, UK.
Conference on Perspectives in Analysis, Geometry, and Topology.
Stockholm University. Sweden.
International Conference on Differential Equations and Topology
dedicated to the Centennial Anniversary of L.S. Pontryagin, the Steklov
Mathematical Institute and Moscow State University, Moscow.
International Conference on New Horizons in Toric Topology, University of
Manchester, Manchester, UK. Plenary speaker.
Algebra and Geometry Seminar, University of Toronto
General seminar “Globus”, the Independent Moscow University,
Moscow, Russia
Colloquium, The University of Western Ontario, London, Ontario
Third International Workshop on Differential Algebra and Related Topics,
Rutgers University at Newark, Newark New Jersey, USA
Seminar “Riemann surfaces, Lie algebras and math. physics”, Independent
University of Moscow, Moscow, Russia
- 2009 Mini-workshop on New Perspectives in Valuation Theory. Thematic
Program on O-minimal Structures and Real Analytic Geometry. Fields
Institute, Toronto
Novikov’s Seminar on Geometry, Topology and Mathematical Physics,
Moscow State University, Moscow, Russia.
Seminar of Harmonic Analysis, Laboratoire de Mathématiques, Université
Paris-Sud 11, Orsay, France.
Teissier’s Seminar on Singularities, Institut Mathématique de Jussieu,
Paris, France.
Conference “Algebra and Topology in Interaction” in Honor
of Professor Dmitry B.Fuchs on the occasion of his 70th Anniversary.
UC Davis - MSRI, Davis, USA.
Workshop on Complexity of Numerical Computation. Thematic Program
on the Foundations of Computational Mathematics. Fields Institute,
Toronto.
- 2010 Colloquium, University of Toronto, Canada.
Colloquium, McMaster University, Hamilton, Ontario, Canada.
Special Algebraic Geometry Seminar, University of British Columbia,
Vancouver, Canada.
Research Conference on Algebraic Methods in Dynamical Systems,
Banach Center, Bedlewo, Poland. Invited Speaker.

- International Conference on Differential Equations and Dynamical Systems.
Suzdal, Vladimir region, Russia. Plenary Speaker.
- International Conference on Geometry, Topology, Algebra and Number
Theory, Applications, Steklov Mathematical Institute, Moscow,
Russia. Invited Speaker.
- International Conference on Metric Geometry of Surfaces and Polyhedra.
Moscow State University, Moscow, Russia.
- 2011 International Conference on Control and Optimization of Nonholonomic
System. Pereslavl-Zalessky, Vladimir State University, Russia.
Invited Speaker.
- Mini-Workshop: New Developments in Newton-Okounov Bodies.
Oberwolfach. Germany.
- International Conference on Toric Topology and Automorphic Functions.
Khabarovsk, Russia. Plenary Speaker.
- International Conference on Resolution of Singularities and Related Topics.
In Honour of the 80th Birthday of Heisuke Hironaka Tordesillas, Spain.
Seminar, University of Michigan, Ann Arbor, USA.

D. LIST OF COURSES (Sins 1996)

7a. Undergraduate

2011-2012	MAT 401F	Polynomial Equations and Fields
2011-2012	MAT 402S	Classical Geometries
2010-2011	MAT 402S	Classical Geometries
2009-2010	MAT 402S	Classical Geometries
2009-2010	MAT 401S	Polynomial Equations and Fields
2008-2009	MAT 402S	Classical Geometries
2007-2008	MAT 402S	Classical Geometries
2005-2006	MAT 402S	Classical Geometries
2004-2005	MAT 267S	Advanced Ordinary Differential Equations
2004-2005	MAT 365S	Classical Plane Geometries and their Transformations
2003-2004	MAT 267S	Advanced Ordinary Differential Equations
2003-2004	MAT 365S	Classical Plane Geometries and their Transformations
2001-2002	MAT 244F	Ordinary Differential Equations
2001-2002	MAT 365S	Classical Plane Geometries and their Transformations
2000-2001	MAT 365S	Classical Plane Geometries and their Transformations
2000-2001	MAT 498Y	Readings in Mathematics: Group Theory & Non-Euclidean Geometry
1999-2000	MAT 363F	Differential Geometry I
1999-2000	MAT 398Y	Readings in Mathematics: Topics in Analysis, Algebra, and Geometry
1999-2000	MAT 244S	Ordinary Differential Equation
1999-2000	MAT 365S	Classical Plane Geometries and their Transformations
1998-1999	MAT 363F	Differential Geometry I

1998-1999	MAT 267S	Advanced Ordinary Differential Equation
1998-1999	MAT 325S	Classical Plane Geometries and their Transformations
1997-1998	MAT 467F	Seminar in Math
1997-1998	MAT 467S	Seminar in Math
1995-1996	MAT 244S	Differential equations

7b. Graduate Courses

2011-2012	MAT 1194HS	Algebraic Curves: Galois Theory and Riemann Surfaces
2009-2010	MAT 1340HF/425HF	Introduction to Smooth Topology and Mapping Degree Theory
2008-2009	MAT 1103HF	Introduction to Algebraic Geometry, Algebraic Curves and Plane Geometry
2008-2009	MAT 1190HS	Toric Varieties and Newton Polyhedra
2007-2008	MAT 1340F/425F	Differential Topology I: Smooth Topology and Morse Theory
2007-2008	MAT1341S	Differential Topology II: Algebraic Topology from a Differential Viewpoint
2006-2007	MAT 1103F	Galois Theory and Riemann Surfaces
2005-2006	MAT 1194F/449F	Introduction to Algebraic Geometry, Algebraic Curves and Plane Geometry
2005-2006	MAT 1190S	Introduction to Algebraic Geometry, Toric Varieties and Newton Polyhedra
2004-2005	MAT 1341F/425F	Differential Topology
2003-2004	MAT 1190F	Real Algebraic Geometry and Fewnomials
2003-2004	MAT 1901F	Readings in Mathematics: Toric Geometry
2001-2002	MAT 1190F	Introduction to Algebraic Geometry, Toric Varieties
2000-2001	MAT 1341F/425F	Differential topology
1999-2000	MAT F	A topological variant of Galois theory
1998-1999	MAT F	Algebraic Geometry of Toric Varieties
1997-1998	MAT 1155F	Introduction to Algebraic Geometry, Toric Varieties
1996-1997	F	Introduction to the Differential Topology (MIU)
1996-1997	MAT 1313S	Fewnomials (at the Fields Institute and U of T)
1995-1996	MAT 1312S	Topics in Geometry

7c. Supervision of undergraduate, graduate students and postdocs (since 1996)

2009-2011	Matveev Konstantin	(undergraduate student) supervision, Konstantin was the best Canadian contestant in 2010 Putnam Competition, he will receive the Nathan Mendelsohn Prize for this honour
2008-	Burda Yuri	(for Ph.D. at UofT) supervision current
2007-	Yang Jessie	(for Ph.D. at UofT) supervision current
2006-2007	Chulkov Sergey	postdoc, supervision

2005-2010	Firsova Tatiana	(Ph.D. completed in 2010) supervision
2005-2010	Mazin Mikhail	(Ph.D. completed in 2010) supervision
2005-2007	Esterov Alexander	postdoc, supervision
2003-2009	Kisunko Veniamin	(Ph.D. completed in 2009) supervision
2002-2004	Kirichenko Valentina	(Ph.D. completed in 2003) supervision
2001-2004	Timorin Vladlen	(Ph.D. completed in 2003) supervision
2000-2002	Chulkov Sergey	(undergraduate student) supervision
2000-2002	Kirichenko Valentina	(undergraduate student) supervision
2000-2003	Kisunko Veniamin	(undergraduate student) supervision
1997-2002	Soprunova Eugenia	(Ph.D. completed in 2002) supervision
1997-2002	Soprunov Ivan	(Ph.D. completed in 2002) supervision
1997-2002	Kaven Kiumars	(Ph.D. completed in 2002) supervision
1999-2001	Farz-ali Izadi	(Ph.D. completed in 2001) supervision
1999-2001	Novikov Dmitrii	postdoc, co-supervision
1997-1998	Ivrii Alex	(undergraduate student) supervision
1996-2001	Timorin Vladlen	(undergraduate student) supervision
1996-1997	Libine Matvei	(undergraduate student) supervision, Matvei got Frank Knox Memorial Fellowship, and NSERC Postgraduate Scholarship (graduating from U of T at Spring 1997)
1996-1997	Belkin Mikhail	(undergraduate student) supervision

7d. Supervision of Seminars

2011-2012	Algebra and Geometry Seminar
2010-2011	Algebra and Geometry Seminar
2009-2010	Algebra and Geometry Seminar
2008-2009	Algebra and Geometry Seminar
2007-2008	Algebra and Geometry Seminar
2006-2007	Algebra and Geometry Seminar
2005-2006	Algebra and Geometry Seminar
2003-2004	Geometry Seminar
2001-2002	Newton Polyhedra Seminar
2000-2001	Toric Varieties, Convex Geometry and Combinatorics Seminar
Fall, 2000	Analytic Geometry and Differential Equations Seminar
Spring, 2001	Algebra and Geometry Seminar