CURRICULUM VITAE

ALEXEY GORINOV

1. Contact information

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2. Education

2004 PhD in Mathematics, University of Paris 7 Denis Diderot, mention très honorable. Dates of attendance 2000-2004.

Thesis title: Conical resolutions of discriminants and applications to complex and real algebraic geometry.

Thesis advisor: Pierre Vogel.

2000 MS in Pure Mathematics, École Polytechnique, France, mention très bien (highest possible grade). Dates of attendance: 1999-2000.

1999 MS in Philology, Moscow State University, Faculty of Philology. Dates of attendance: 1994-1999.

1998 MS in Mathematics, Moscow State University, Facuty of Mechanics and Mathematics, Honours diploma. Dates of attendance: 1993-1998.

3. Academic record

2012-present Reader (docent), Higher School of Economics, Moscow, Russia.

2007-2012 Lecturer, University of Liverpool, UK.

June 2007-September 2007 and **June 2008-November 2008** Visiting researcher at the Max Planck Institute for Mathematics, Bonn.

2005-2007 Postdoctoral researcher, University of Nijmegen (the Netherlands), supported by the NWO grant "Geometry of Discriminants".

2003-2005 Temporary teaching and research associate (ATER), University of Paris 7.

2000-2003 Graduate research associate (allocataire de recherche), University of Paris 7.

2000-2003 Graduate teaching assistant (moniteur), University of Paris 12.

4. Teaching experience

4.1. Lecture courses, HSE Moscow.

- Topology II (basic homological algebra, the Eilenberg-Steenrod axioms, main computational tools, the universal coefficient theorem, the Künneth formula, the Poincaré duality; applications), spring 2013, 10 students, 80 hours.
- Topology I (topological and metric spaces, the classification of surfaces, covering spaces and the fundamental group; applications), autumn 2013, 8 students, 64 hours.
- Introduction to generalised cohomology theories (spectra, cohomology theories and examples, mainly real and complex K-theory; Bott's theorems; Brown's theorem; applications such as the Hopf invariant 1 theorem and vector fields on spheres; Thom's theorem in generalised cohomology

and applications; Thom spectra and cobordism), autumn 2013 (32 hours, 12 students) and spring 2014 (40 hours, 8 students).

4.2. **Lecture courses, University of Liverpool.**

- Mathematics for Economics and Business (quadratic equations, exponential and logarithmic functions, differentiation, graphs of functions, applications), 2007, 31 students, 48 hours.
- Numbers, Groups and Codes (elements of number theory, elements of group theory, RSA, error correcting codes), 2008-2011, 105-120 students, 48 hours.
- Introduction to knot theory and low-dimensional topology (knot polynomials, braids, classification of surfaces, Riemann-Hurwitz formula; Master's level course), spring 2009 (4 students) and spring 2011 (10 students).
- History of Algebra, 2010, 35 students, 12 hours.

4.3. **Exercise classes.**

HSE Moscow

- Introduction to topology (topological amd metric spaces, covering spaces and the fundamental group, basics of the homology theory), 2013 – 2014.
- Algebra tutorials for 1st year students (rings, fields, modules, linear algebra), autumn 2013.

University of Liverpool

- Mathematics (graphs of functions, differentiation, integration, series), autumn 2007, 2009-2010.
- Mathematics (Taylor formula, ordinary differential equations, functions of several variables, double integrals), 2008-2010.

University of Paris 12

- Mathematics tutorials for Life Sciences students (DEUG SV, introduction to mathematics, limits), autumn 2000, 2 groups of approximately 20 people, 25 hours per group.
- Mathematics tutorials for Mathematics and Informatics students (DEUG MASS, series, linear algebra), autumn 2001 and 2002, 1 group of approximately 20 people per semester, 50 hours per group per semester.
- Mathematics tutorials for students in Material Sciences (DEUG SM, linear algebra, functions of several variables), autumn 2001 and 2002, 1 group of approximately 20 people per semester, 25 hours per group per semester.

University of Paris 7

- Mathematics tutorials for students in Social Sciences (DEUG MIAS, graphs of fucntions, differentiation, integration, plane curves, ordinary differential equations), spring 2004, 1 group of aproximately 25 people, 25 hours.
- Mathematics tutorials for students in Social Sciences (DEUG MIAS, introduction to mathematics, limits, elements of linear algebra), autumn 2004, 1 group of aproximately 25 people, 25 hours.

In 2009 I was voted Best tutor by the first year undergraduate Mathematics students at the University of Liverpool.

5. Community service and administration

- organiser of the Colloquium of the Pure Mathematics Division, University of Liverpool.
- referee for Compositio Mathematica.
- reviewer for Mathematical Reviews and Zentralblatt.
- supervising final Undergraduate projects (Liverpool and Moscow), Master's projects (Liverpool) and co-supervising a PhD project (Liverpool).
- member of thesis committee at the defense of O. Tommasi, Nijmegen, November 2005.

6. Invited talks

6.1. **Conferences and workshops.**

Singularities, Oberwolfach, Germany, September 2001.
Singularity Day, Warwick, June 2006.
Singularities, Oberwolfach, Germany, September 2006.
Topology of complex algebraic varieties, Alghero, Italy, September 2006.

Geometry of complex algebraic varieties, Luminy, France, October 2006.
Moduli spaces, Max Planck Institute for Mathematics, Bonn, January 2008.
Singularity Day, Liverpool, May 2008.
Singularities, ICMS, Edinburgh, August 2008.
Singularity Day, Warwick, October 2009.

6.2. **Colloquia.**

Max Planck Institute for Mathematics, Bonn, August 2007.
Liverpool, November 2007.

6.3. **Seminars.**

V.I. Arnold's seminar, Institut de Mathématiques de Jussieu, Paris.
Topology seminar, Paris 7.
Seminar on symplectic geometry and applications, Strasbourg.
Topology seminar, Paris .
Seminar on complex analysis and geometry, Grenoble.
Algebraic geometry seminar, Institut de Mathématiques de Jussieu.
V.I. Arnold's seminar, Institut de Mathématiques de Jussieu, Paris.
Seminar on complex analytic geometry, Institut Henri Poincaré, Paris.
Algebraic geometry seminar, Lille.
Algebraic geometry seminar, Utrecht.
Algebra and geometry seminar, Grenoble.
Algebraic geometry seminar, Institut de Mathématiques de Jussieu, Paris.
Algebraic geometry seminar, Lille.
The SYMPLECT'X seminar, École Polytechnique, France.
Complex geometry seminar, Institut Henri Poincaré, Paris.
Topology seminar, Louvain-la-Neuve.
Topology seminar, Lille.
Algebraic geometry seminar, University of Zurich.
Seminar on symplectic geometry and applications, Strasbourg.
Geometry and topology seminar, Utrecht.
Algebraic geometry seminar, Leiden.
Singularities Seminar, Liverpool.
Algebraic geometry seminar, Liverpool.
Dynamical systems seminar, Liverpool.
Geometry seminar, Edinburgh.
Seminar of the Laboratory of Algebraic geometry, HSE Moscow.
Seminar on moduli spaces and characteristic classes, HSE Moscow.

7. Language skills

Russian (mother tongue), English, French and German (fluent), Italian and Dutch (basic).