Nikolay V. Bogachev

Curriculum Vitae

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▬ PERSONAL INFORMATION

Birth	19 Oct 1992 (Moscow, Russia)
Citizenship	Russia
Status	Married, we have a child
Languages	Russian (native), English, German (intermediate)

▬ EDUCATION

Postgraduate study

Sep 2014 – present **Lomonosov Moscow State University**, *the Chair of Higher Algebra of the Department of Mechanics and Mathematics* , Moscow, Russia.
Scientific advisor: Prof. E. B. Vinberg.

University

Aug 2009 – Jun 2014 **Lomonosov Moscow State University**, *the Chair of Higher Algebra of the Department of Mechanics and Mathematics* , Moscow, Russia.
The gold Medal and Diploma with Honours in Mathematics (M.Sc., cum laude), *GPA* ~ 4.9 (5.0 = "excellent"); Diploma Title: Reflective hyperbolic lattices of rank 4;
Scientific advisor: Prof. E. B. Vinberg.

▬ RESEARCH INTERESTS

Hyperbolic geometry

Hyperbolic reflection groups

Determinantal point processes

▬ PUBLICATIONS & PREPRINTS

Oct 2016 **Reflective anisotropic hyperbolic lattices of rank** 4.
preprint is available on `https://arxiv.org/abs/1610.06148`

Feb 2017 **Reflective anisotropic hyperbolic lattices of rank** 4, *Russian Mathematical Surveys*, 2017, Vol. 1, p. 193-194 (in Russian, translation into English will appear in Apr-May).

▬ CONFERENCE PROCEEDINGS

Jan 2017 **The Sixth School-Conference on Lie Algebras, Algebraic Groups and Invariant Theory, Jan 30 – Feb 04, 2017, Abstracts**, *MSU & IUM*, Moscow, Publ. Dept. Mech. Math. MSU, 2017, p. 18 - 19.
Topic: Reflective anisotropic hyperbolic lattices of rank 4

Positions

Feb 2017 — present   **Research Scientist**, *The Laboratory of Advanced Combinatorics and Network Applications*, Moscow Institute of Physics and Technology, Moscow, Russia.

Sep 2016 — present   **Lecturer**, *Moscow Institute of Physics and Technology*, Moscow, Russia.
Lecturer on Differential Geometry and Linear Algebra

Dec 2015 — Feb 2017   **Researcher**, *JSC «Infotecs»*, Moscow, Russia.
Geometric and algebraic applications to Cryptography

Sep 2014 — Jun 2015   **Methodist and Teaching Assistant**, *the Center of online education «Foxford»*, Moscow, Russia.
Methodist and teaching assistant on geometric and olympiad's courses

Feb 2010 — Apr 2016   **Teacher on Mathematics**, *School 54*, Moscow, Russia.
Geometry, Algebra, Olympiad Mathematics

Short Term Visiting Research Positions

Jun 2015   **Visiting scholar**, *University of Bielefeld*, Bielefeld, Germany.
Research on convergence of determinantal point processes

Talks at Seminars and Conferences

May 2016   **Seminar «Lie groups and invariant theory»**, *MSU*, Moscow, Russia.
Topic: 1.2-reflective anisotropic lattices of rank 4

Nov 2016   **Conference «MIPT-59»**, *MIPT*, Moscow, Russia.
Topic: Reflective hyperbolic lattices

Jan 2017   **The Sixth School-Conference on Lie Algebras, Algebraic Groups and Invariant Theory**, *MSU & IUM*, Moscow, Russia.
Topic: Reflective anisotropic hyperbolic lattices of rank 4

Feb 2017   **Seminar «MIPT & Yandex»**, *Yandex*, Moscow, Russia.
Topic: Hyperbolic reflection groups and reflective hyperbolic lattices

Mar 2017   **S. P. Novikov's Seminar «Geometry, Topology and Mathematical Physics»**, *MSU*, Moscow, Russia.
Topic: Arithmetic reflection groups in Lobachevsky spaces

Grants and Awards

Grants and scholarships

2017   **Simons Foundation Prize**, *The competition of grants of students and PhD-students in mathematics.*

2012 — 2014   **Increased scholarships**, *The financial support for university students-honors for their scientific achievements and social activities (in my case for annual participation in the work of methodical commissions of All-Russian Mathematical Olympiads 2011—2014 and participation in organizing of Moscow Mathematical Olympiads).*

Competitions of teachers of mathematics

2012, 2014   2nd **Prizes**, *All-Russian competitions of teachers of mathematics.*

University Olympiads

2011   3rd **Prize**, *Olympiad on Ordinary Differential Equations.*

2010, 2011 3rd **Prizes**, *Olympiads on Calculus.*
2010, 2011   **«Honourable mention»**, *Final Mathematical Olympiads of MSU.*
2010   **«Honourable mention»**, *Kolmogorov Probability Olympiad.*
2009 3rd **Prize**, *Olympiad on Algebra.*

School Olympiads

2009 1st **Prize**, *Mathematical Olympiad «Lomonosov».*
2009 3rd **Prize**, *Moscow Mathematical Olympiad.*
2009 3rd **Prize**, *Oral Sharygin Moscow Olympiad on Geometry.*
2007 3rd **Prize**, *Olympiad of Department of Mechanics and Mathematics.*

REFERENCES

Professor E.B. Vinberg, *Lomonosov Moscow State Univesity*, Department of Mechanics and Mathematics, Moscow, Russia.
Email: evinberg@gmail.com

Professor O.V. Schwarzman, *National Research University Higher School of Economics*, Department of Mathematics, Moscow, Russia.
Email: ossipsh@gmail.com