

CURRICULUM VITAE

Nikolay Konovalov

Contact information

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Personal information

Born: August 13, 1994, Perm, Russian Federation
Citizenship: Russia (Russian Federation)

Academic position

09.2023–08.2024 Postdoctoral Fellow in *Max Planck Institute for Mathematics*,
Bonn, Germany.

Education

University of Notre Dame, Notre Dame, USA
Ph.D. in Mathematics, Graduation Date: May 2023
Thesis: Algebraic Goodwillie spectral sequence
Advisor: Mark Behrens

Higher School of Economics, Moscow, Russia
M.S. in Mathematics, Graduation Date: June 2018
Advisor: Alexey Gorinov

Higher School of Economics, Moscow, Russia
B.S. in Mathematics, Graduation Date: June 2016
Advisor: Alexey Gorinov

Research interests

Algebraic topology: unstable homotopy theory, Adams spectral sequence, Goodwillie calculus, algebra of secondary cohomological operations.

Algebraic geometry: discriminant complements, mixed Hodge structures, automorphism groups.

Fellowships and awards

- 2023 Richard Sady Dissertation Prize, University of Notre Dame, Department of Mathematics
- 2017–2018 HSE academic scholarship for M.S. students in Mathematics
- 2017 Simons stipends for students and graduate students, awarded jointly by the Simons Foundation and Independent University of Moscow

Papers

1. *A Division Theorem for Nodal Projective Hypersurfaces* (2022), *Math. Z.*, **302(3)**, pp. 1585–1592, available at arXiv:2202.07507.

Preprints and submitted papers

1. *Algebraic Goodwillie spectral sequence* (2023), preprint, available at arXiv:2303.06240. Submitted to *Memoirs of the AMS*.
2. *Koszul duality for simplicial restricted Lie algebras* (2022), preprint, available at arXiv:2209.03312. Submitted to *High. Struct.*
3. *Goodwillie tower of the norm functor* (2020), preprint, available at arXiv:2010.09097. Submitted to *J. Homotopy Relat. Struct.*
4. *Topology of spaces of regular sections and applications to automorphism groups* (2020), preprint, joint with Alexey Gorinov, available at arXiv:1712.02578. Submitted to *Adv. Math.*

Invited talks

- March 2024 *Algebraic Goodwillie spectral sequence*, Topology seminar, University of Haifa (online)
- March 2024 *Algebraic Goodwillie spectral sequence*, TopICS seminar, Utrecht University
- January 2024 *Tempered sheaves*, Oberseminar, MPIM, Bonn
- December 2023 *Algebraic Goodwillie spectral sequence*, Topology seminar, University of Bonn
- November 2023 *Algebraic Goodwillie spectral sequence*, Topology seminar, Ruhr University, Bochum
- July 2023 *Unstable homotopy theory and Goodwillie calculus*, two lectures in Russian, XIII summer school “Algebra and Geometry”, Suzdal
- May 2023 *Algebraic Goodwillie spectral sequence*, Topology seminar, MIT
- February 2023 *Algebraic Goodwillie spectral sequence*, Topology seminar, Johns Hopkins University
- December 2022 *Koszul duality for simplicial restricted Lie algebras*, Algebra/Topology seminar, University of Copenhagen
- December 2022 *Algebraic Goodwillie spectral sequence*, Topology seminar, University of Chicago

Teaching experience

Teaching Assistant:

Spring 2022	<i>Calculus I</i> , University of Notre Dame
Fall 2021	<i>Calculus III</i> , University of Notre Dame
Spring 2021	<i>Honors Calculus II</i> , University of Notre Dame. Lecturer: Andy Putman
Fall 2020	<i>Honors Calculus I</i> , University of Notre Dame. Lecturer: Andy Putman
Spring 2020	<i>Calculus B</i> , University of Notre Dame
Fall 2019	<i>Calculus A</i> , University of Notre Dame
Fall 2016	<i>Basics of Smooth Manifolds</i> , Higher School of Economics. Lecturer: Sergey Natanzon

Languages

Russian (native speaker), English (advanced), Komi-Zyryan (beginner).