BORIS LISHAK

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EMPLOYMENT

The University of Sydney (01/2017 - Present)
Postdoctoral Research Associate

Max Planck Institute for Mathematics (09/2016 - 12/2016)
Postdoctoral Visitor

EDUCATION

The University of Toronto (2009 - 2016)
Ph.D. in Mathematics
Advisor: Alexander Nabutovsky

The University of Toronto (2008 - 2009)
M.Sc. in Mathematics

York University (2004 - 2008)
B.S. in Mathematics and Physics

AWARDS AND FELLOWSHIPS

NSERC Postdoctoral Fellowship, Natural Sciences and Engineering Research Council of Canada (01/2017 - 01/2019)

Malcolm Slingsby Robertson Prize in Mathematics, Department of Mathematics, University of Toronto (2016)

PUBLICATIONS AND PREPRINTS

Journal articles

Boris Lishak, and Alexander Nabutovsky. "Complexity of Unknotting of Trivial 2-knots" *J. Topol. Anal.*, accepted.

Boris Lishak, and Alexander Nabutovsky. "Sizes of spaces of triangulations of 4-manifolds and balanced presentations of the trivial group" *J. Topol. Anal.*, **11**, 02 (2019).

Boris Lishak, and Alexander Nabutovsky. "Balanced presentations of the trivial group and four-dimensional geometry" *J. Topol. Anal.*, **09**, 01 (2017).

Boris Lishak, "Balanced finite presentations of the trivial group" *J. Topol. Anal.*, **09**, 02 (2016).

Preprints

Evgeny Liokumovich, Boris Lishak, Alexander Nabutovsky, Regina Rotman(2019), *Filling metric spaces*. Preprint, arXiv:1905.06522.

TALKS

Research Talks

Complexity of unknotting 2-knots. Topology Seminar. Monash University (04/2019)

Trisections and their complexity. Geometry and Topology Session, Australian Mathematical Society Annual Meeting, (12/2018)

The space of triangulations of a compact 4-manifold. Combinatorics Seminar, Hebrew University of Jerusalem (01/2018)

The space of triangulations of a compact 4-manifold. Topology Seminar, The Univerity of Melbourne, (10/2017)

The space of trinagulations of compact 4-manifolds Quantitative Geometry and Topology Session, Mathematical Congress of the Americas (07/2017)

Complexity of untying 2-knots. Geometry and Topology Seminar, The University of Sydney (03/2017)

The space of triangulations of a compact 4-manifold. Workshop: Probabilistic Methods in Topology, Centre de recherches mathématiques, (11/2016)

Unknotting 2-knots. Conference on 4-manifolds and knot concordance, Max-Planck-Institut für Mathematik, (10/2016)

Balanced finite presentations of the trivial group and geometry of four-dimensional manifolds. Workshop on Geometric Group Theory and Geometric Topology, University of Virginia, (10/2015)

Balanced finite presentations of the trivial group and geometry of four-dimensional manifolds. Topology and Group Theory Seminar, Vanderbilt University, (09/2015)

Four dimensional spheres with unusual metrics. Topology and Geometry Seminar, University of Toronto, (03/2015)

Educational Talks

Links and framings, Student Algebra Seminar Seminar, University of Sydney, 2019

Group Cohomology, Friday Informal Seminar, University of Sydney, 2019

Steenrod Squares, Learning Seminar, University of Toronto 2016

COURSES TAUGHT

Geometry and Topology. University of Sydney.
(course coordinator for the geometry part, giving lectures, making assignments, quizzes, exams)

Geometry and Topology. University of Sydney.
(course coordinator for the geometry part, giving lectures, making assignments, quizzes, exams)

Calculus II. University of Sydney.
(teaching one section, participating in composing exam)

Linear Algebra II. University of Toronto.
(course coordinator, giving lectures, making assignments, quizzes, exams)

Calculus I. University of Toronto.
(teaching one section, participating in composing exam)

PROFESSIONAL SERVICE

- Geometry and Topology Seminar organizer at the University of Sydney (01/2018-present)
- Served as a referee for math journals.

OTHER SKILLS

Programming: Python, Maple, Mathematica, C++
Languages: English (fluent), Russian (fluent), Spanish (basic), French (basic)