
VALENTIN ZAKHAREVICH
Department of Mathematics
University of Texas at Austin
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Education

2012-present Ph.D. Candidate, Mathematics
University of Texas at Austin, Advisor: Dan Freed

2010-2012 M.S. Mathematics
Université Paris-Sud 11/University of Leiden(Algant), Advisor: Robin de Jong

2006-2010 Polytechnic Institute of NYU.
B.S. Mathematics

Research Interests

Algebraic Topology, Quantum Field Theory, Supersymmetry,
Twisted Equivariant K-theory, Higher Category Theory

Research Publications

Localization and Stationary Phase Approximation on Supermanifolds, Journal of
Mathematical Physics, 58(8), 2017

Isoperimetric inequalities for wave fronts and a generalization of Menzin's con-
jecture for bicycle monodromy on surfaces of constant curvature, with Sean Howe
and Mathew Pancia, Advances in Geometry, 11:2 , 273-292, 2011

Teaching Experience

Fall 2017 TA for M427L Advanced Calculus For Applications II, UT Austin

Fall 2016 TA for M427J Differential Equations With Linear Algebra, UT Austin

Spring 2015 TA for M372K Partial Differential Equations, UT Austin

Fall 2013 TA for M408D Calculus II, UT Austin

Talks/Presentations

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- 06/2017 Verlinde ring for non-connected Lie groups and gauging finite group symmetries- Strongly Correlated Topological Phases of Matter Workshop, Simons Center for Geometry and Physics, Stony Brook
 - 03/2017 Von Neumann Entropy- Geometry & String Theory Seminar, UT Austin
 - 02/2017 Verlinde algebras for non-connected Lie groups- KK-theory, Gauge Theory and Topological Phases Conference, Leiden, The Netherlands
 - 11/2016 Gapped Boundary Phases of Topological Insulators- Geometry & String Theory Seminar, UT Austin
 - 02/2016 Fractional Quantum Hall Effect - Geometry & String Theory Seminar, UT Austin
 - 09/2015 Kitaev's toric code - Geometry & String Theory Seminar, UT Austin
 - 03/2015 Monoidal structures on infinity categories – Derived Algebraic Geometry Learning Seminar, UT Austin
 - 07/2014 Finite gauge theories - West Coast Algebraic Topology Summer School, Vancouver, Canada
 - 04/2014 Introduction to supermanifolds – Junior Geometry Seminar, UT Austin
 - 02/2014 The moment map and equivariant cohomology - Junior Geometry Seminar, University of Texas at Austin
 - 08/2009 Isoperimetric inequalities for wave fronts and mezzin's conjecture on surfaces of constant curvature - Young Mathematicians Conference

Seminars Organized

- Fall 2015 Conformal Field Theory Learning Seminar, UT Austin
- Summer 2014 Chern Simons Learning Seminar, UT Austin

Conferences/Summer Schools/Workshops Attended

- 08/2017 Topological and Geometric Methods in QFT Workshop, Bozeman
- 06/2017 Simons Center's Workshop: Strongly Correlated Topological Phases of Matter, Stony Brook
- 02/2017 KK-theory, Gauge Theory and Topological Phases Conference, Lorentz Center, Leiden, The Netherlands
- 07/2015 Prospects in Theoretical Physics Summer School: "New Insights Into Quantum Matter", Princeton/IAS
- 05/2015 Simons Center's Workshop: Supermoduli, Stony Brook
- 12/2014 IPAM Symmetry and Topology in Quantum Matter, UCLA

12/2014	Berkeley 6d QFT Workshop, Berkeley
08/2014	QGM PhD retreat, Aarhus, Denmark
07/2014	West Coast Algebraic Topology Summer School, Vancouver, Canada
04/2013	11th Annual Graduate Student Topology & Geometry Conference, Notre Dame University
02/2012	Winter School on Galois Theory, Luxemburg
07/2011	SMI at Università degli Studi di Perugia, Perugia, Italy

Awards

2016	Mathematics Department Regents Fellowship
2014	Frank Gerth III Graduate Excellence Award
2010-2012	Erasmus Mundus Scholarship
2009	Math in Moscow Scholarship from AMS
2008	MASS Merit Fellowship
2006-2010	Honors Scholarship at Polytechnic Institute of NYU

Services

October 2017	Presented at the Saturday Morning Math Group program for high school students. Title "Affine Geometry: All you ever wanted to know (but were afraid to ask!) about triangles"
	Supervised undergraduate students in Directed Reading Program: Spring 2014, Fall 2014, Spring 2015, Fall 2015
	Created an online repository for links to video recordings of math and physics talks: http://mtalks.ma.utexas.edu/

Languages

English
 Russian(bilingual)
 French(conversational)