Alexey Balitskiy

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PERSONAL INFO

Birth: October 1992 | Russia

EDUCATION

Massachusetts Institute of Technology
Sep 2016 -- present | PhD
Department: Mathematics
Advisor: Larry Guth

Moscow Institute of Physics and Technology
Sep 2014 -- Jun 2016 | Master
Sep 2010 -- Jun 2014 | Bachelor
Cum. GPA: 9.6 out of 10
Department: Control and Applied Mathematics
Major: Intellectual Data Analysis
Thesis: ``Shortest closed billiard trajectories in convex bodies in connection with Viterbo's conjecture''
Advisor: Roman Karasev

SKILLS

COMPUTER
Familiar with
LaTeX • C • C++ • C#
LANGUAGE
Russian (mothertongue) • English (fluent)

HOBBIES

Choir singing
Playing piano
Indie games
Linguistics

RESEARCH

FIELDS OF INTEREST
Discrete, convex, metric geometry

PAPERS AND PREPRINTS

- *Equality cases in Viterbo's conjecture and isoperimetric billiard inequalities*, to appear in Int. Math. Res. Not., arXiv:1512.01657 (2018)
- *On the Circle Covering Theorem by A. W. Goodman and R. E. Goodman* (with A. Akopyan and M. Grigorev), Discrete Comput. Geom. 59.4 (2017): pp 1001-1009, arXiv:1605.04300 (2016)
- *Optimality of codes with respect to error probability in Gaussian noise* (with R. Karasev and A. Tsigler), arXiv:1701.07986 (2016)
- *Dependence of the heavily covered point on parameters* (with R. Karasev), arXiv:1602.05073 (2016)
- *Shortest closed billiard trajectories in the plane and equality cases in Mahler's conjecture*, Geom. Dedicata 184.1 (2016): pp 121–134, arXiv:1409.5782
- *Billiards in convex bodies with acute angles* (with A. Akopyan), Israel J. Math. 216.2 (2016): pp 833-845, arXiv:1506.06014 (2015)
- *Elementary approach to closed billiard trajectories in asymmetric normed spaces* (with A. Akopyan, R. Karasev and A. Sharipova), Proc. Amer. Math. Soc. 144.10 (2016): pp 4501-4513, arXiv:1401.0442
- *Another Ham Sandwich in the Plane* (with A. Garber and R. Karasev), Annals of Combinatorics 19.2 (2015): pp 235-242, arXiv:1307.7698

HONORS & AWARDS

Mar 2015	Laureate of Simons stipend for students
Nov 2014	Winner (2nd place) on 18th All-Russian Möbius Contest
Jul 2014	First Prize at International Mathematics Competition for University Students	Bulgaria
Apr 2014	First Place at 23th Vojtech Jarník International Mathematical Competition	Czech Republic
Apr 2010	Winner at All-Russian Mathematical Olympiad
2008–2010	Multiple medalist at All-Russian Olympiad in Mathematics and Informatics

PROFESSIONAL AFFILIATIONS

TEACHING ASSISTANT | Massachusetts Institute of Technology
2017-2018   Grader for Probability | Linear Algebra

INTERN RESEARCHER | Institute for Information Transmission Problems, Moscow

TEACHING ASSISTANT | Moscow Institute of Physics and Technology
2014-2016   Recitation leader for Calculus | Algorithms | Functional Analysis | Combinatorics | Topics in Algebra (link in Russian)