# **Artem Kotelskiy**

Curriculum Vitae

Indiana University
Math dept, 831 E 3rd Street
Bloomington, IN, 47405

 $email: \ artofkot@iu.edu\\ homepage: \ artofkot.github.io$ 

• Indiana University, Bloomington, USA. Zorn postdoctoral fellow.

2018 - present

### **EDUCATION**

Princeton University, Princeton, USA.
 Ph.D. in Mathematics. Advisor: Zoltán Szabó.

2013 - 2018

• Lomonosov Moscow State University, Moscow, Russia. B.S. and M.S. in Mathematics. Advisor: Taras Panov. 2008 - 2013

#### AWARDS AND HONORS

• AMS Simons travel grant.

2019

• Graduate student teaching award, Princeton University.
In recognition of outstanding teaching.

2017

• 32nd Russian national mathematical Olympiad, 3rd prize.

2008

• Moscow Mathematical Olympiad, 1st and 2nd prizes. Special prize for a beautiful geometric solution in 2006. 2006, 2008

• President prize from the government of Russia, for extraordinary achievements.

2006, 2008

## Publications and preprints

• A mnemonic for the Lipshitz-Ozsváth-Thurston correspondence. Submitted. arXiv:2005.02792 (13 pages) 2020

• Khovanov invariants via Fukaya categories: the tangle invariants agree. Submitted. arXiv:2004.01619 (14 pages)

2020

• Immersed curves in Khovanov homology. Submitted. arXiv:1910.14584 (95 pages)

2019

• Bordered theory for pillowcase homology.

2019

Mathematical Research Letters 26, no. 5, 1467-1516. arXiv:1707.07481

2017

• Comparing homological invariants for mapping classes of surfaces.

To appear in Michigan Mathematical Journal. arXiv:1702.04071 (52 pages)

• Minimal and Hamiltonian-minimal submanifolds in toric geometry.

2016

Journal of Symplectic Geometry 14, no. 2, 431-448. arXiv:1307.8140

# CONFERENCE AND WORKSHOP TALKS

CONFERENCE AND WORKSHOT TALKS	
• Interactions of gauge theory with contact and symplectic topology in dimensions 3 and 4. BIRS workshop, virtual talk via zoom.	June 2020
• CRM's 50th anniversary workshop "Low-dimensional topology". CIRGET, Montréal, Canada.	September 2019
• Tehran Topology 2018. School of Mathematics, IPM, Tehran, Iran.	June 2018
• International Seminar on Toric Topology and Homotopy Theory. Steklov Mathematical Institute, Moscow, Russia.	June 2018
• Perspectives on bordered Heegaard Floer theory. CIRGET, Montréal, Canada.	May 2018
SEMINAR TALKS	
• Trends in Low-Dimensional Topology, virtual seminar.	May 2020
• University of British Columbia, virtual talk via zoom. Topology Seminar.	May 2020
• Caltech, virtual talk via zoom.  Joint LA Topology Seminar.	April 2020
• Columbia University, New York, USA. Topology Seminar.	December 2019
• Princeton University, Princeton, USA. Topology Seminar.	December 2019
• Dartmouth College, Hanover, USA. Topology Seminar.	March 2019
• Michigan State University, Lansing, USA. Topology Seminar.	October 2018
• University of British Columbia, Vancouver, Canada. Topology Seminar.	September 2018
• University of Georgia, Athens, USA. Topology Seminar.	August 2018
• Indiana University, Bloomington, USA. Topology Seminar.	January 2018
• Caltech, Pasadena, USA. Geometry and Topology Seminar.	November 2017
• Rutgers University, New Brunswick, USA. Geometry and Topology Seminar.	November 2017
• Columbia University, New York, USA. Symplectic Geometry, Gauge Theory, and Categorification Seminar.	November 2017
• MIT, Cambridge, USA. Geometry and Topology Seminar.	October 2017
• Stony Brook University, Stony Brook, USA.  Topology and Symplectic Geometry / Math of Gauge Fields seminar.	September 2017

# TEACHING AND WORK EXPERIENCE

• Linear Algebra and Applications, Indiana University. One 50 students section.	Spring 2020
• Calculus I, Indiana University. Two 60 students sections.	Fall 2019
• Brief Survey of Calculus, Indiana University. One 75 students section.	Spring 2019
• Brief Survey of Calculus, Indiana University. Two 75 students sections.	Fall 2018
• Linear algebra with applications, Princeton University. One 25 students section.	Fall 2015
• Review sessions for linear algebra and calculus, Princeton University.	2016 - 2017
• Online math-education platform Evarist, side project. www.evarist.org/course/mathan/ We teach there analysis with proofs exclusively through problem solving.	2015 – present

### Miscellaneous

- Languages: English, Russian, Armenian.
- Programming skills: web and python.

  Built www.evarist.org, see https://github.com/artofkot/evarist.

  Also implemented a python package to work with type DA bimodules and their Hochschild homologies, which accompanies the paper Comparing homological invariants for mapping classes of surfaces.
- Interests: blockchain, Ethereum, game go (2dan), chess, volleyball, table tennis.