# Artem Kotelskiy

Curriculum Vitae

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

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

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$\mathbf{F}_{\mathbf{M}}$	PI.	OY	ME1	NT

• 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.	2019-2022
• Graduate student teaching award, Princeton University.	2017
• 32nd Russian national mathematical Olympiad, 3rd prize.	2008
• Moscow Mathematical Olympiad, 1st and 2nd prizes.	2006, 2008
• President prize from the government of Russia.	2006, 2008

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Publications and preprints	
• Thin links and Conway spheres.  Joint with L. Watson and C. Zibrowius. In preparation.	2020
• The correspondence induced on the pillowcase by the earring tangle.  Joint with G. Cazassus, C. Herald and P. Kirk. arXiv:2010.04320 (57 pages)	2020
• Khovanov invariants via Fukaya categories: the tangle invariants agree. Joint with L. Watson and C. Zibrowius. arXiv:2004.01619 (14 pages)	2020
• A mnemonic for the Lipshitz-Ozsváth-Thurston correspondence.  Joint with L. Watson and C. Zibrowius. arXiv:2005.02792 (13 pages)	2020
• Immersed curves in Khovanov homology.  Joint with L. Watson and C. Zibrowius. arXiv:1910.14584 (95 pages)	2019
• Bordered theory for pillowcase homology.  Mathematical Research Letters 26, no. 5. arXiv:1707.07481 (35 pages)	2019
• Comparing homological invariants for mapping classes of surfaces. To appear in <i>Michigan Mathematical Journal</i> . arXiv:1702.04071 (52 pages)	2017
• Minimal and Hamiltonian-minimal submanifolds in toric geometry.  Journal of Symplectic Geometry 14, no. 2. arXiv:1307.8140 (13 pages)	2013

# ${\bf SERVICE}$

SERVICE	
• Co-organizer of Topology Seminar, Indiana University.	2018-2020
• Co-organizer of the math department Colloquium, Indiana University.	2019-2020
• Co-organizer of graduate student Seminar in Symplectic Geometry, Indiana University.	2018-2019
• Referee for mathematical journals.  Journal of Topology, Algebraic and Geometric Topology,  Proceedings of the London Mathematical Society,  Proceedings of the Royal Society of Edinburgh.	2018-present
Conference and Workshop 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.	June 2018
Steklov Mathematical Institute, Moscow, Russia.	
	May 2018
• Perspectives on bordered Heegaard Floer theory. CIRGET, Montréal, Canada.	May 2018
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• University of Georgia, Athens, USA. August 2018 Topology Seminar. • Indiana University, Bloomington, USA. January 2018 Topology Seminar. • Caltech, Pasadena, USA. November 2017 Geometry and Topology Seminar. • Rutgers University, New Brunswick, USA. November 2017 Geometry and Topology Seminar. • Columbia University, New York, USA. November 2017 Symplectic Geometry, Gauge Theory, and Categorification Seminar. • MIT, Cambridge, USA. October 2017 Geometry and Topology Seminar. • Stony Brook University, Stony Brook, USA. September 2017 Topology and Symplectic Geometry / Math of Gauge Fields seminar. TEACHING AND WORK EXPERIENCE • Calculus I, Indiana University. Fall 2020 Two 60 students sections, fully online. • Linear Algebra and Applications, Indiana University. Spring 2020 One 50 students section. • Calculus I, Indiana University. Fall 2019 Two 60 students sections. • Brief Survey of Calculus, Indiana University. Spring 2019 One 75 students section. • Brief Survey of Calculus, Indiana University. Fall 2018 Two 75 students sections. • Linear algebra with applications, Princeton University. Fall 2015 One 25 students section. • Review sessions for linear algebra and calculus, Princeton University. 2016 - 2017• Online math-education platform Evarist, side project. 2015 - present www.evarist.org/course/mathan/ We teach there analysis with proofs exclusively through problem solving.

### Miscellaneous

- Languages: English, Russian, Armenian.
- $\bullet$   ${\bf Programming~skills:}$  web and python.
  - Built an online platform for learning math, see code.
  - Implemented a python package to work with type DA bimodules.
- Interests: blockchain, Ethereum, game go (2dan), chess, volleyball, table tennis.