

Artem Kotelskiy

Curriculum Vitae

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

*email: artofkot@gmail.com
homepage: artofkot.github.io*

EMPLOYMENT

- **Stony Brook University**, Stony Brook, USA. 2021 – present
Simons Instructor.
- **Indiana University**, Bloomington, USA. 2018 – 2021
Zorn postdoctoral fellow.

EDUCATION

- **Princeton University**, Princeton, USA. 2013 – 2018
Ph.D. in Mathematics. Advisor: Zoltán Szabó.
- **Lomonosov Moscow State University**, Moscow, Russia. 2008 – 2013
B.S. and M.S. in Mathematics. Advisor: Taras Panov.

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

PUBLICATIONS AND PREPRINTS

- **Thin links and Conway spheres.** 2021
Joint with L. Watson and C. Zibrowius. arXiv:2105.06308 (82 pages)
- **Khovanov homology and strong inversions.** 2021
Joint with L. Watson and C. Zibrowius. arXiv:2010.04320 (15 pages)
- **The correspondence induced on the pillowcase by the earring tangle.** 2020
Joint with G. Cazassus, C. Herald and P. Kirk. arXiv:2010.04320 (57 pages)
- **A mnemonic for the Lipshitz-Ozsváth-Thurston correspondence.** 2020
Joint with L. Watson and C. Zibrowius. arXiv:2005.02792 (13 pages)
- **Khovanov invariants via Fukaya categories: the tangle invariants agree.** 2020
Joint with L. Watson and C. Zibrowius. arXiv:2004.01619 (14 pages)
- **Immersed curves in Khovanov homology.** 2019
Joint with L. Watson and C. Zibrowius. arXiv:1910.14584 (95 pages)
- **Bordered theory for pillowcase homology.** 2019
Mathematical Research Letters **26**, no. 5. arXiv:1707.07481 (35 pages)
- **Comparing homological invariants for mapping classes of surfaces.** 2017
To appear in *Michigan Mathematical Journal*. arXiv:1702.04071 (52 pages)
- **Minimal and Hamiltonian-minimal submanifolds in toric geometry.** 2013
Journal of Symplectic Geometry **14**, no. 2. arXiv:1307.8140 (13 pages)

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.** 2018-present
Journal of Topology, Algebraic and Geometric Topology,
Proceedings of the London Mathematical Society,
Proceedings of the Royal Society of Edinburgh.

CONFERENCE AND WORKSHOP TALKS

- **Gauge Theory, Geometry, and Low-Dimensional Topology.** March 2021
AMS special session, virtual.
- **Topology and Geometry of 3- and 4-manifolds.** March 2021
AMS special session, virtual.
- **Topology and geometry of group actions.** November 2020
HSE, Moscow, Russia, virtual.
- **Interactions of gauge theory with contact and symplectic topology in dimensions 3 and 4.** June 2020
BIRS workshop, virtual.
- **CRM's 50th anniversary workshop "Low-dimensional topology".** September 2019
CIRGET, Montréal, Canada.
- **Tehran Topology 2018.** June 2018
School of Mathematics, IPM, Tehran, Iran.
- **International Seminar on Toric Topology and Homotopy Theory.** June 2018
Steklov Mathematical Institute, Moscow, Russia.
- **Perspectives on bordered Heegaard Floer theory.** May 2018
CIRGET, Montréal, Canada.

SEMINAR TALKS

- **Caltech**, Pasadena, USA. May 2021
Geometry and Topology Seminar, virtual.
- **UC San Diego**, San Diego, USA. April 2021
Topology Seminar, virtual.
- **UC Berkeley**, Berkeley, USA. April 2021
Topology Seminar, virtual.
- **Virtual Seminar on Gauge Theory** March 2021
- **Princeton University**, Princeton, USA. November 2020
Topology Seminar, virtual.
- **Indiana University**, Bloomington, USA. November 2020
Colloquium, virtual.
- **Western Hemisphere Virtual Symplectic Seminar** October 2020

- **Trends in Low-Dimensional Topology**, virtual. May 2020
- **University of British Columbia**, Vancouver, Canada. May 2020
Topology Seminar, virtual.
- **Caltech**, Pasadena, USA. April 2020
Joint LA Topology Seminar, virtual.
- **Columbia University**, New York, USA. December 2019
Topology Seminar.
- **Princeton University**, Princeton, USA. December 2019
Topology Seminar.
- **Dartmouth College**, Hanover, USA. March 2019
Topology Seminar.
- **Michigan State University**, Lansing, USA. October 2018
Topology Seminar.
- **University of British Columbia**, Vancouver, Canada. September 2018
Topology Seminar.
- **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

- **Modern techniques in knot theory**, Indiana University. Spring 2021
Graduate course, fully online.
- **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.
- **Programming skills:** web and python.
 - Built an [online platform](#) for learning math; [source code](#).
 - Implemented a [python package](#) to work with type DA bimodules.
- **Interests:** blockchain, Ethereum, game go (2dan), chess, volleyball, table tennis.