

# Artem Kotelskiy

*Curriculum Vitae*

*Stony Brook University  
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## EMPLOYMENT

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

## EDUCATION

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

## AWARDS AND HONORS

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- **AMS-Simons travel grant.** 2019-2023
- **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

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- **Bordered theory for pillowcase homology.** 2019  
*Mathematical Research Letters* **26**(5). arXiv:1707.07481 (35 pages)
- **Comparing homological invariants for mapping classes of surfaces.** 2017  
*Michigan Mathematical Journal* **30**(3). arXiv:1702.04071 (52 pages)
- **Minimal and Hamiltonian-minimal submanifolds in toric geometry.** 2013  
*Journal of Symplectic Geometry* **14**(2). arXiv:1307.8140 (13 pages)

## ACCEPTED FOR PUBLICATION

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- **Khovanov homology and strong inversions.** 2021  
Joint with L. Watson and C. Zibrowius. arXiv:2010.04320 (15 pages)  
To appear in *The Open Book Series*.
- **A mnemonic for the Lipshitz-Ozsváth-Thurston correspondence.** 2020  
Joint with L. Watson and C. Zibrowius. arXiv:2005.02792 (13 pages)  
To appear in *Algebraic and Geometric Topology*

## PREPRINTS

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- **Khovanov multicurves are linear.** 2022  
Joint with L. Watson and C. Zibrowius. arXiv:2202.01460 (41 pages)
- **Cosmetic operations and Khovanov multicurves.** 2021  
Joint with T. Lidman, A.H. Moore, L. Watson and C. Zibrowius. arXiv:2109.14049 (20 pages)
- **Thin links and Conway spheres.** 2021  
Joint with L. Watson and C. Zibrowius. arXiv:2105.06308 (82 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)
- **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)

## CONFERENCE AND WORKSHOP TALKS

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- **Perspectives on quantum link homology theories.** August 2021  
University of Regensburg, Germany, virtual.
- **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.
- **Lomonosov 2012.** April 2012  
Moscow State University, Moscow, Russia,

## SERVICE

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- **Co-organizer of "Low-dimensional topology, Symplectic topology & Gauge Theory" seminar,** 2021  
Stony Brook University.
- **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,** 2018-2019  
Indiana University.
- **Reviewing and consulting 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,*  
*Indiana University Mathematics Journal,*  
*The Open Book Series, Selecta Mathematica.*

## SEMINAR TALKS

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- **Stony Brook University,** Stony Brook, USA. September 2021  
Low-dimensional Topology, Symplectic Geometry & Gauge Theory Seminar.
- **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

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- **Logic, Language and Proof**, Stony Brook University. Fall 2021  
One 15 students section.
- **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/](http://www.evarist.org/course/mathan/)  
We teach there analysis with proofs exclusively through problem solving.

## MISCELLANEOUS

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- **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.