Artem Kotelskiy

Curriculum Vitae

Indiana University
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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

a) Articles published by outlets with scientific quality assurance, book publications, and works accepted for publication but not yet published.

1. **Bordered theory for pillowcase homology.** 2019
   Mathematical Research Letters **26**, no. 5. arXiv:1707.07481 (35 pages)
2. **Comparing homological invariants for mapping classes of surfaces.** 2017
   Michigan Mathematical Journal, Advance Publication, 1-58, (see the acceptance e-mail attached). arXiv:1702.04071 (52 pages)
3. **Minimal and Hamiltonian-minimal submanifolds in toric geometry.** 2013
   Journal of Symplectic Geometry **14**, no. 2. arXiv:1307.8140 (13 pages)

b) Other publications, both peer-reviewed and non-peer-reviewed.

4. **Thin links and Conway spheres.** 2021
   Joint with L. Watson and C. Zibrowius. arXiv:2105.06308 (82 pages)
5. **Khovanov homology and strong inversions.** 2021
   Joint with L. Watson and C. Zibrowius. arXiv:2010.04320 (15 pages)

6. **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)

7. **A mnemonic for the Lipshitz-Ozsváth-Thurston correspondence.** 2020
Joint with L. Watson and C. Zibrowius. arXiv:2005.02792 (13 pages)

8. **Khovanov invariants via Fukaya categories: the tangle invariants agree.** 2020
Joint with L. Watson and C. Zibrowius. arXiv:2004.01619 (14 pages)

9. **Immersed curves in Khovanov homology.** 2019
Joint with L. Watson and C. Zibrowius. arXiv:1910.14584 (95 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.

Gmail

Artem Kotelskiy <artofkot@gmail.com>

MMJ File #5484

Michigan Math J <Michigan.Math.J@umich.edu> Tue, May 26, 2020 at 10:54 AM
To: "artofkot@gmail.com" <artofkot@gmail.com>, "Kotelskiy, Artem" <artofkot@iu.edu>, Michigan Math J <Michigan.Math.J@umich.edu>

Dear Professor Kotelskiy:

I am pleased to accept the revised version of your paper "Comparing homological invariants for mapping classes of surfaces" for publication in the Michigan Mathematical Journal.

You will need to supply us with an electronic file of the final version of the manuscript. The file will need to be a TeX/LaTeX/AMS-TeX file, and sent by email. Please include any macros files and figure files used in the paper, as well as a PDF file of your paper. Please assure that the final version of the paper contains accurate grammar and proper English usage.

Prior to publication, your paper will be typeset to conform to the MMJ style and format for the display, pages, etc. Minor grammatical changes may also be made in an effort to assure proper style. You will, of course, be sent galley proofs of the paper once editing has taken place. Any edits made during the process can be changed, provided the grammar and exposition are still correct. The copyeditor will query authors in the galley proofs about significant changes to the text. If there is a change in the email address to which the galleys should be sent, please keep us informed.

Once published, you will receive a PDF file of the final version of your paper. There are also 10 hard copy offprints available. I hope that your institutions currently subscribe to the Michigan Mathematical Journal. If not, subscription information is available on our website.

With best regards,

Mircea Mustata
Managing Editor

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