

# Yury Ustinovskiy

## Curriculum Vitae

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### Education

- 2006-2011 **Moscow State University**, *Master degree in mathematics cum laude*, Department of Geometry and Topology.  
supervisor: Taras Panov
- 2006-2012 **Independent University of Moscow**, *Master degree in mathematics cum laude*.  
supervisor: Taras Panov
- 2014-current **Princeton University**, *PhD student*, Department of Mathematics.  
supervisor: Gang Tian

### Thesis

- Master thesis **Geometrical structures on moment-angle-manifolds**  
supervisor: Taras Panov
- PhD thesis **Hermitian curvature flow and curvature positivity conditions**  
(expected 2018) supervisor: Gang Tian

### Research interests

Non-Kähler complex geometry, differential geometry, equivariant algebraic topology,

### Publications & preprints

- 2009 **Doubling operation for polytopes and torus actions**, *Yu. M. Ustinovskii*, Russian Mathematical Surveys, 2009, 64:5, pp. 952–954.  
arXiv:0909.1050
- 2011 **Toral Rank Conjecture for Moment-Angle Complexes**, *Yu. M. Ustinovskii*, Math. Notes, 2011, 90:2, pp. 279–283.  
arXiv:0909.1053
- 2012 **Complex-analytic structures on moment-angle-manifolds**, *T. Panov, Y. Ustinovsky*, Moscow Mathematical Journal, 2012, 12:1.  
arXiv:1008.4764
- 2012 **On torus actions and Horrocks conjecture**, *Yu. M. Ustinovskii*, Far Eastern mathematical journal, 2012, 12:1, pp. 98–107.  
arXiv:1203.3685
- 2014 **Geometry of compact complex manifolds with maximal torus action**, *Y. Ustinovsky*, Tr. Mat. Inst. Steklova, 2014: 286, pp. 219–230.  
arXiv:1308.2818

- 2016 **Complex geometry of moment-angle manifolds**, *T. Panov, Y. Ustinovsky, M. Verbitsky*, *Mathematische Zeitschrift*, 2016, 1-2:284, pp. 309–333.  
arXiv:1308.2818
- 2016 **Projective toric polynomial generators in the unitary cobordism ring**, *G. Solomonadin, Y. Ustinovskiy*, *Mat. Sbornik*, 207:11, pp. 127–152.  
arXiv:1602.02448
- 2016 **The Hermitian curvature flow on manifolds with non-negative Griffiths curvature**, *Y. Ustinovskiy*, preprint.  
arXiv:1604.04813
- 2016 **On face numbers of flag simplicial complexes**, *Y. Ustinovskiy*, preprint.  
arXiv:1610.03888
- 2017 **Hermitian curvature flow on complex homogeneous manifolds**, *Y. Ustinovskiy*, preprint.  
arXiv:1706.07023
- 2017 **Lie-Algebraic Curvature Conditions preserved by the Hermitian curvature flow**, *Y. Ustinovskiy*, preprint.  
arXiv:1710.06035

### Awards, honours & grants

- 2009 Dobrushin stipend for talented students
- 2011 Dobrushin stipend for talented students
- 2012-2013 Dmitri Zimin's "Dynasty" foundation stipend for young scientists
- 2012 Simons' foundation stipend for students
- 2013-2014 Dmitri Zimin's "Dynasty" foundation stipend for young scientists

### Recent conference talks

- 08.2016 *Glances@Manifolds II*  
Kraków, Jagiellonian University
- 02.2017 *RTG day*  
Princeton University
- 05.2017 *AMS Sectional Meeting*  
New York, Hunter College
- 06.2017 *Encounter in Topology 'n Algebra*  
Catania, Scuola Superiore di Catania

### Recent seminar talks

- 09.2014 On complex geometry of some non-Kähler manifolds  
*Graduate student seminar*, Princeton
- 04.2015 Cohomology of spaces with torus action and toral rank conjecture  
*Algebraic topology seminar*, Princeton
- 12.2015 Toric polynomial generators in the unitary cobordism ring  
*Algebraic topology seminar*, Princeton

- 01.2017 Hermitian curvature flow and positivity  
*Differential geometry seminar*, UC Irvine
- 02.2017 Maximum principle for tensors and Ricci flow invariant curvature conditions  
*Graduate student seminar*, Princeton
- 02.2017 Metric flows on Hermitian manifolds  
*Seminar of the laboratory of algebraic geometry and its applications*, Higher School of Economy, Moscow
- 10.2017 Lie algebraic curvature conditions preserved by Hermitian curvature flow  
*Complex analysis and geometry seminar*, Rutgers University

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### Recent conferences & workshops attended

- 03.2016 *Kähler Geometry, Einstein Metrics, and Generalizations*  
MSRI
- 05.2016 *Geometric Flows in Riemannian and Complex Geometry*  
MSRI
- 06.2017 *Complex Analytic and Differential Geometry*  
Grenoble

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### Work experience

- 2006–2014 **Mathematics teacher**, *High School no.57*, Moscow, Mathematics for gifted students.
- 2009–2014 **Researcher-developer**, *Yandex*, Moscow, Department of theoretical and applied research.
- 2011–2014 **Assistant teacher**, *Moscow Institute of Physics and Technology*, Moscow, Seminars on differential geometry and topology for undergraduate students.
- 2012–2017 **Mathematics teacher**, *High School no.57*, Moscow, Mathematical summer camp for gifted students.
- 2015–current **Assistant in teaching**, *Princeton University*.