

CURRICULUM VITAE

Name: Andrei Ionov

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Education:

- PhD in Mathematics, MIT (2022);
- Degree of Master of Science at HSE, Faculty of Mathematics, Moscow, Russia (2017);
- Degree of Bachelor of Science at HSE, Faculty of Mathematics, Moscow, Russia (2015);
- Diploma of IUM, Moscow, Russia (2015).

Positions:

- UT Austin, Bing Instructor (2025–)
- Boston College, Visiting Assistant Professor (2022–2025)
- Laboratory of Algebraic Geometry and its Applications, HSE, Faculty of Mathematics, Moscow, Russia, research intern (2016–2017).

Awards:

- Charles and Holly Housman Award for Excellence in Teaching, MIT, 2021;
- Competition for the best projects of fundamental scientific research by young scientists studying in graduate school, RFBR, 2019;
- First prize at Student Research Paper Competition (Mathematics), HSE, 2017;
- Arnold Scholarship 2014/2015.

Publications and Preprints:

- J. Adams, A. Ionov, L. Mason-Brown, D. Vogan, "The Unitarity of Arthur Packets for Real Reductive Groups", arXiv preprint:2606.01609 (2026)
- R. Gonin, A. Ionov, K. Tolmachov, "On t-exactness property of the Harish-Chandra transform", arXiv preprint:2412.07146 (2024)
- A. Ionov, "Fourier transform on the locus of cyclic spectral curves in the Hitchin base", arXiv preprint:2404.13787 (2024)
- A. Basalaev, A. Ionov, "Hodge diamonds of the Landau-Ginzburg orbifolds", SIGMA 20 (2024), 024, 25 pages, doi: 10.3842/SIGMA.2024.024
- R. Bezrukavnikov, A. Ionov, K. Tolmachov, Y. Varshavsky, "Equivariant derived category of a reductive group as a categorical center", arXiv preprint: 2305.02980 (2023), accepted to Israel Journal of Mathematics
- A. Ionov, Z. Yun, "Tilting sheaves for real groups and Koszul duality", arXiv preprint:2301.05409 (2023), accepted to Compositio Mathematica
- A. Ionov, "McKay correspondence and orbifold equivalence" J. of Pure and App. Alg. Volume 227, Issue 5, 107297, (2023), doi: 10.1016/j.jpaa.2022.107297
- A. Basalaev, A. Ionov, "Mirror map for Fermat polynomial with non-abelian group of symmetries", Th. and Math. Phys., 209(2): 1491–1506, (2021), doi: 10.1134/S0040577921110015
- A. Ionov, D. Pentalnd "Filtrations on block subalgebras of reduced universal enveloping algebras", J. of Alg. and its App. (2021), doi: 10.1142/S0219498823500019
- A. Basalaev, A. Ionov, "Hochschild cohomology of Fermat type polynomials with non-abelian symmetries", J. Geom. Phys. 174, (2022), doi: 10.1016/j.geomphys.2021.104450
- A. Ionov, "Primitive forms for Gepner singularities", J. Geom. Phys. 140, 125–130 (2016), doi: 10.1016/j.geomphys.2019.03.001

- M. Finkelberg, A. Ionov "Kostka-Shoji polynomials and Lusztig's convolution diagram", Bull. of Inst. of Math. Ac. Sinica (New Series), Vol. 13. No. 1. P. 31–42 (2018), doi: 10.21915/BIMAS.2018102
- M. Finkelberg, V. Ginzburg, A. Ionov, A. Kuznetsov, "Intersection cohomology of the Uhlenbeck compactification of the Calogero-Moser space", Selecta Math., New Series, Vol. 22. No. 4. P. 2491–2534 (2016), doi: 10.1007/s00029-016-0279-1

Teaching and mentorship:

- lecturer, M373L (Abstract algebra II), spring 2026;
- lecturer, M373K (Abstract algebra I), fall 2025;
- lecturer, MATH1101 (Calculus II), spring 2025;
- lecturer, MATH8865 (Topics in algebraic geometry), fall 2024;
- lecturer, MATH2210 (Linear algebra), fall 2023;
- lecturer, MATH1007 (Ideas in mathematics), spring 2023 and spring 2024;
- lecturer, MATH1101 (Calculus II), fall 2022;
- mentor, Primes program "Yulia's Dream" at MIT, spring 2022–spring 2024, fall 2025–spring 2026;
- mentor, UROP (Undergraduate research opportunities) at MIT, fall 2021 and summer 2022;
- course administrator and teaching assistant, 18.02a (multivariable calculus) at MIT, fall 2020 and IAP 2021;
- course administrator and teaching assistant, 18.01a (single variable calculus) at MIT, fall 2020;
- mentor, SPUR (Summer program in undergraduate research) at MIT, summer 2020 and summer 2024;
- teaching assistant, 18.02 (multivariable calculus) at MIT, spring 2020.

Some Invited talks:

- "Localization to fixed points of a cyclic group, quasi-split unequal parameter Hecke categories and base change lifting" at the "Lie group seminar" (February 2026, MIT, Cambridge);
- "Categorification of link invariants and Koszul dualities" (September 2025, UT Austin, Austin);
- "Tilting sheaves for real groups and Koszul duality" (October 2024, UT Austin, Austin);
- "Character sheaves, Koszul duality and link invariants" at "Infinite-dimensional algebra seminar" (October 2024, MIT, Cambridge);
- "Tilting sheaves in real stratifications and Koszul duality" at AGNES (March 2024, Boston College, Chestnut Hill);
- "Tilting sheaves for real groups and Koszul duality" at the "NT&RT Seminar" (October 2022, Boston College, Chestnut Hill);
- "Tilting sheaves for real groups and Koszul duality" at the "Lie group seminar" (April 2022, MIT, Cambridge);
- "Tilting sheaves for real groups and Koszul duality" at the seminar "Geometric structures on manifolds" (January 2022, HSE, Moscow);
- "Equivariant singularity theory and mirror symmetry for Fermat polynomials with non-abelian groups of symmetries" at the seminar of Laboratory of Cluster Geometry (January 2022, HSE, Moscow);