

Research areas

Geometric representation theory, Geometric Langlands program,

Education

- 2011-2015 **Bachelor of Science**, *University of Science and Technology of China*, USTC
Department School for Gifted Young
- 2015-2016 **Master**, *Université de Paris-Sud(Université Paris-Saclay)*, U-PSUD(UPSaclay)
supervisor Dennis Gaitsgory
- 2016-2020 **Ph.D**, *Université de Lorraine*, UL
supervisor Dennis Gaitsgory, Sergey Lysenko
- Thesis Twisted Whittaker category on affine flags and category of representations of mixed quantum group , 17 June 2020, Université de Lorraine
- 2020-2024 **Research Scientist**, *Center of Advanced Studies, Skolkovo Institute of Science and Technology, Moscow, Russia*
supervisor Michael Finkelberg
- 2024- **Research Assistant**, *Academy of Mathematics and Systems Science, The Chinese Academy of Science*,

Papers and ongoing projects

1. Irreducibility of Infinite Dimensional Steinberg Modules of Reductive Groups with Frobenius Maps, *Journal of Algebra*, 533 (2019) pp. 17-24,
2. (joint with R.Travkin) Untwisted Gaiotto conjecture, *Advances in Mathematics*, Volume 435, Part A, 15 December 2023,
3. Twisted Whittaker category on affine flags and the category of representations of the mixed quantum group, *Compositio Mathematica*, Volume 160 , Issue 6 , June 2024 ,
4. A resolution of singularities of Drinfeld compactification with an Iwahori structure, *Representation Theory, An Electronic Journal of the American Mathematical Society*, Volume 28, Pages 366–380 (September 13, 2024), arXiv:2104.09862,
5. (joint with R.Travkin) Twisted Gaiotto equivalence for $GL(M|N)$, submitted, arXiv:2306.09556,
6. (joint with M.Finkelberg and R.Travkin) Gaiotto equivalence for $F(4)$, preprint, arXiv:2406.05521,
7. (joint with R.Travkin) Iwahori Gaiotto equivalence, *work-in-progress*,

8. (joint with M.Finkelberg and R.Travkin) Gaiotto equivalence for $G(3)$ and $SOSp(2k|2l+1)$, *work-in-progress*,

Scientific awards and honors

- 12/2015 New World Mathematics Award, Bachelor Silver,
 05/2015 Thesis Prize, The University of Chinese Academy of Sciences,
 08/2014 Algebra Individual Gold Prize, S.T-Yau College Student Mathematics Competition,
 08/2014 Team Gold Prize, S.T-Yau College Student Mathematics Competition,

Mentions

- 07/2016 La mention Tres Bien, Université de Paris-Sud,
 06/2015 Honorable rank, University of Science and Technology of China,

Presentation by invitation

- 01/2017 An equivalent definition of singular support for D-modules
Geometry and Representation Theory, The Erwin Schrödinger International Institute for mathematics and physics, Vienne,
- 05/2019 Fundamental local equivalence in Geometric Langlands
Young Mathematicians Academic Forum - Séminaire Mathjeunes, University of Science and Technology of China, Hefei,
- 10/2020 Fundamental local equivalence in Geometric Langlands
The Chinese Academy of Sciences, Beijing,
- 12/2020 Introduction to Whittaker models
Yanqi Lake Institute of Mathematical Sciences, Beijing
- 12/2020 Introduction to Langlands program
University of Science and Technology of China, Hefei,
- 04/2022 Untwisted Gaiotto equivalence for $GL(M|N)$.
Institute for Advanced Study in Mathematics, Zhejiang univeristy, Hangzhou
- 05/2022 Untwisted Gaiotto equivalence for $GL(M|N)$.
Center of Advanced Studies, Skolkovo Institute of Science and Technology, Moscow
- 07/2022 Untwisted Gaiotto equivalence for $GL(M|N)$.
 On the conference "Geometric representation theory — with a focus on flag varieties and affine Grassmannians"
- 07/2023 On the Gaiotto conjecture.
The Chinese Academy of Sciences, Beijing,
- 07/2023 On the Gaiotto conjecture.
YMSC, Tsinghua univerity, Beijing,
- 07/2023 On the Gaiotto conjecture.

University of Science and Technology of China, Hefei,

04/2024 On the Gaiotto conjecture.

*Center of Advanced Studies, Skolkovo Institute of Science and Technology,
Moscow*

06/2024 On the Gaiotto conjecture.

*Workshop on classical, geometric and physics aspects of the Relative Langlands
program, University of Minnesota, Minneapolis*