

Ning Guo

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Academic positions

- 1/2026 – present **Institute of Advanced Study in Mathematics of HIT**, Harbin Institute of Technology, *Professor (Shenzhou Scholar)*, Harbin.
- 9/2024 – 1/2026 **Institute of Advanced Study in Mathematics of HIT**, Harbin Institute of Technology, *Associate Professor (Shenzhou Junior Scholar)*, Harbin.
- 6/2021 – 7/2024 **Euler International Mathematical Institute**, Steklov Mathematical Institute of Russian Academy of Sciences, *Junior Researcher*, St. Petersburg.
Mentor: Ivan Aleksandrovich Panin

Visiting positions

- 3/2026 – 6/2026 **Institut de Mathématiques de Jussieu, Sorbonne Université**, Global Vision Young Scholar Visiting Program, *invited by Kęstutis Česnavičius*.
- 4/2024 – 5/2024 **Morningside Center of Mathematics, Chinese Academy of Sciences**, *invited by Zicheng Qian*.
- 6/2023 – 7/2023 **Peking University**, *invited by Enlin Yang*.
- 2/2023 **Morningside Center of Mathematics, Chinese Academy of Sciences**, *invited by Weizhe Zheng*.

Education

- 9/2018 – 6/2021 **Université Paris-Saclay**, Gif-sur-Yvette, Île-de-France, France.
[certificate](#) PhD in Algebraic Geometry; advisor: Kęstutis Česnavičius
- 9/2017 – 6/2018 **Université Paris-Sud**, Orsay, Île-de-France, France.
MSc in Algebraic Geometry; advisor: Kęstutis Česnavičius
Mention: Très Bien
- 9/2015 – 6/2018 **Chinese Academy of Sciences**, Haidian, Beijing, China.
MSc in Algebraic Geometry; advisor: Weizhe Zheng
- 9/2012 – 6/2015 **University of Science and Technology of China**, Hefei–Beijing, China.
BSc in Pure Mathematics; advisor: Weizhe Zheng
- 9/2011 – 6/2012 **University of Science and Technology of China**, Hefei, Anhui, China.
Undergraduate student in Physics; advisor: Sen Hu

Publications and preprints

- [doi: 10.1093/...](https://doi.org/10.1093/...) **The Bass–Quillen conjecture for torsors over valuation rings**, with Fei Liu, *Int. Math. Res. Not.*, **2025(11)** (2025), 1–17.

- mathnet: aa1953 **Weak elementary fibrations**, with Ivan Panin, *St. Petersburg Mathematical Journal (Algebra i Analiz)*, **37(1)** (2025), 32–56.
- doi: 10.5802/... **Purity and quasi-split torsors over Prüfer bases**, with Fei Liu, *J. Ec. Polytech. Math.*, **11** (2024), 187–246.
- doi: 10.1112/... **The Grothendieck–Serre Conjecture over Valuation Rings**, *Compos. Math.*, **160** (2024), no. 2, 317–355.
- doi: 10.1007/... **The Grothendieck–Serre Conjecture over Semilocal Dedekind Rings**, *Transform. Groups*, **27** (2022), 897–917.
- arXiv: 2301.12460 **Grothendieck–Serre for constant reductive group schemes**, with Fei Liu, *submitted*.
- arXiv: 2302.02842 **On the Grothendieck–Serre conjecture for projective smooth schemes over a DVR**, with Ivan Panin, *submitted*.
- arXiv: 2302.02818 **A presentation theorem for smooth projective schemes over discrete valuation rings**, with Ivan Panin.
- arXiv: 2209.02443 **Ample Sheaves on Group Homogeneous Spaces over Prüfer Bases.**
- arXiv: 1801.06065 **Wildly Compatible Systems and Six Operations.**

Selected Invited Talks

- 17/12/2025 **Symposium on Number Theory and Arithmetic Geometry**, Tsinghua Sanya International Forum, Sanya.
- 5/9/2025 **The Arithmetic and Algebraic Geometry Week**, *Arithmetic Groups and p-adic Langlands*, “Alexandru Ioan Cuza” University, Iași.
- 16/8/2025 **17th Annual Conference of the Heilongjiang Mathematical Society**, Haitian Hotel, Jiamusi.
- 14/1/2025 **Seminar on Arithmetic Geometry**, Humboldt-Universität zu Berlin, Institut für Mathematik, Berlin.
- 8/12/2024 **Workshop on Number Theory**, Tianyuan Mathematical Center in Southeast China and Xiamen University, Xiamen.
- 27/10/2024 **6th Kyoto⁺ Workshop on Arithmetic and Geometry**, Nanjing University of Science and Technology, Nanjing University, RIMS Kyoto University.
- 26/9/2024 **Arithmetic geometry seminar**, Westlake University, Hangzhou.
- 19/10/2023 **Seminar on algebra**, Institute of Mathematics, Hanoi.
- 23/2/2023 **Seminar on Algebraic Geometry and Ramification**, Peking University.
- 25/11/2022 **Algebraic Geometry Seminar**, The National Research University Higher School of Economics (HSE University), Moscow.
- 11/11/2022 **Second Conference of the Mathematical Centres of Russia**, Moscow State University and Steklov Mathematical Institute of Russian Academy of Sciences, Moscow.
- 21/10/2021 **$\mathbb{A}^1$ -topology, Motives and K-theory**, Euler International Mathematical Institute, Sankt Petersburg.
- 15/6/2021 **Quadratic Forms, Linear Algebraic Groups and Beyond**, Online.
- 8/12/2020 **Saint Petersburg Algebraic Groups Seminar**, Chebyshev Laboratory at St. Petersburg State University, Sankt Petersburg.
- 25/11/2020 **Séminaire de Théorie des Nombres Paris–Londres**, Orsay, Île-de-France.
- 2/9/2019 **Buildings and Affine Grassmannians**, Centre International de Rencontres Mathématiques (CIRM), Campus de Luminy, Marseille.

Honors and Awards

- 1/2026 – 12/2028 **Young Scientists Fund of the Natural Science Foundation of China (C Class)**, Grant No. 12501016, *Principal bundles under group schemes and their applications in arithmetic geometry*.
- 3/2026 – 6/2026 **Global Vision Young Scholar Visiting Program Grant**, Harbin Institute of Technology, *selected for a fully funded research visit to Paris, France*.
- 16/8/2025 **Excellent Young Scholar of Heilongjiang Mathematical Society (Category B)**, Jiamusi.
- 26/12/2023 **A certificate of award for work in the mathematical sciences**, *Year-end ceremony of Steklov Mathematical Institute*, St. Petersburg.
- 3/2015 **Chinese Academy of Sciences Outstanding Freshman Award**.
- 30/12/2014 **A Certificate of Honor of the Hua Loo-Keng Talent Program**.
- 9/2011 **Outstanding Freshman Award of USTC**, Grade 2.

Teaching

- 6/2023 – 7/2023 **Minicourse: Purity of Brauer groups (application of perfectoids)**, *Peking University*, Beijing, China.
- 9/2021 – 1/2022 **EGA_{IV} (étude locale des schémas et des morphismes de schémas)**, *Saint Petersburg State University*, Sankt Peterburg, Russia.
- 9/2015 – 9/2016 **Assistant in Linear Algebra**, *University of Chinese Academy of Sciences*, Beijing, China.
- 9/2014 – 1/2015 **Assistant in Partial Differential Equations**, *University of Science and Technology of China*, Hefei, China.

Review Experience

Mathematische Annalen, Michigan Mathematical Journal, Journal of Number Theory, International Mathematics Research Notices, Compositio Mathematica, Journal of the European Mathematical Society.