

# Fumiaki Suzuki

## CONTACT INFORMATION

BICMR, Peking University, No.5 Yiheyuan Road Haidian District, Beijing, China  
suzuki@bicmr.pku.edu.cn  
<https://fumiaki-suzuki.github.io/>

## RESEARCH INTERESTS

Algebraic geometry, especially, algebraic cycles, birational geometry, and Hodge theory.

## EMPLOYMENT

**Beijing International Center for Mathematical Research, Peking University**  
Assistant Professor, September 2025 - present

### **Leibniz University Hannover**

Research Assistant (Postdoc), funded by the ERC Starting Grant “RationAlgic”,  
July 2023 - August 2025, Mentor: Stefan Schreieder

### **University of California, Los Angeles**

Hedrick Assistant Adjunct Professor, July 2020 - June 2023, Mentor: Burt Totaro

## EDUCATION

### **University of Illinois at Chicago**

Ph.D. in Mathematics, May 2020, Advisor: Lawrence Ein

### **University of Tokyo**

M.S. in Mathematics, March 2015, Advisor: Yujiro Kawamata  
B.S. in Mathematics, March 2013

## PUBLICATIONS

11. *Two coniveau filtrations and algebraic equivalence over finite fields* (with F. Scavia), **Algebraic Geometry** 12 (2025), no. 5, 701–734.  
[arXiv:2304.08560](#), [DOI:10.14231/AG-2025-019](#)
10. *Arithmetic and birational properties of linear spaces on intersections of two quadrics* (with L. Ji), **Journal de l'École polytechnique — Mathématiques** 12 (2025), 1161–1196.  
[arXiv:2402.18857](#), [DOI:10.5802/jep.308](#)
9. *Non-algebraic geometrically trivial cohomology classes over finite fields* (with F. Scavia), **Advances in Mathematics** 458 (2024), 109964, 30 pp.  
[arXiv:2206.12732](#), [DOI:10.1016/j.aim.2024.109964](#)
8. *An  $\mathcal{O}$ -acyclic variety of even index* (with J. C. Ottem, and an appendix by O. Wittenberg), **Mathematische Annalen** 388 (2024), no. 3, 3025–3052.  
[arXiv:2010.06079](#), [DOI:10.1007/s00208-023-02581-2](#)
7. *Non-injectivity of the cycle class map in continuous  $\ell$ -adic cohomology* (with F. Scavia), **Forum of Mathematics, Sigma** 11 (2023), e6, 19 pp.  
[arXiv:2208.06713](#), [DOI:10.1017/fms.2023.1](#)
6. *Higher-dimensional Calabi-Yau varieties with dense sets of rational points*, **European Journal of Mathematics** 8 (2022), no. 1, 193–204.  
[arXiv:2102.12966](#), [DOI:10.1007/s40879-021-00506-4](#)
5. *Factorization of the Abel-Jacobi maps*, **Épjournal de Géométrie Algébrique** 5 (2021), Art. 20, 9 pp.  
[arXiv:2012.04802](#), [DOI:10.46298/epiga.2021.6969](#)

4. *Birational superrigidity and K-stability of projectively normal Fano manifolds of index one*, **Michigan Mathematical Journal** 70 (2021), no. 4, 779–792.  
[arXiv:1810.07333](#), [DOI:10.1307/mmj/1599789615](#)
3. *A remark on a 3-fold constructed by Colliot-Thélène and Voisin*, **Mathematical Research Letters** 27 (2020), no. 1, 301–317.  
[arXiv:1805.01067](#), [DOI:10.4310/MRL.2020.v27.n1.a15](#)
2. *A pencil of Enriques surfaces with non-algebraic integral Hodge classes* (with J. C. Ottem), **Mathematische Annalen** 377 (2020), no. 1-2, 183–197.  
[arXiv:1906.08994](#), [DOI:10.1007/s00208-020-01969-8](#)
1. *Birational rigidity of complete intersections*, **Mathematische Zeitschrift** 285 (2017), no. 1-2, 479–492.  
[arXiv:1507.00285](#), [DOI:10.1007/s00209-016-1717-7](#)

#### PREPRINTS

1. *On direct summands of products of Jacobians over arbitrary fields* (with F. Scavia), submitted.  
[arXiv:2507.09821](#)

#### AWARDS

- AMS-Simons Travel Grant, American Mathematical Society and Simons Foundation, 2021 - 2023
- Course Student of Leading Graduate Course for Frontiers of Mathematical Sciences and Physics (FMSP), University of Tokyo, 2013 - 2016

#### VISITING POSITIONS

- Hausdorff Research Institute for Mathematics, Fellow for the Junior Trimester Program “Algebraic geometry: derived categories, Hodge theory, and Chow groups”, September - December 2023
- Mittag-Leffler Institute, Junior Fellow for the Research Program “Moduli and Algebraic Cycles”, August - December 2021 (visit canceled due to the pandemic)

#### INVITED

##### CONFERENCE TALKS

- North German Algebraic Geometry Seminar (NoGAGS), University of Oldenburg, Oldenburg, Germany, February 29, 2024.
- MPS Conference on Higher Dimensional Geometry, Simons Center for Geometry and Physics, Stony Brook, NY, USA, May 10, 2023.
- Birational Complexity of Algebraic Varieties, Simons Center for Geometry and Physics, Stony Brook, NY, USA, December 13, 2022.
- Algebraic Geometry Northeastern Series (AGNES) at Boston College, online, October 24, 2021.
- AMS Sectional Meeting, Special Session on Homological and Characteristic  $p > 0$  Methods in Commutative Algebra, University of Wisconsin-Madison, Madison, WI, USA, September 15, 2019.
- Midwest Algebraic Geometry Graduate Conference (MAGGC), University of Illinois at Chicago, Chicago, IL, USA, March 16, 2019.
- AMS Sectional Meeting, Special Session on Advances in Birational Geometry, University of Arkansas, Fayetteville, AR, USA, November 3, 2018.
- Princeton-Tokyo Algebraic Geometry Conference, Princeton University, Princeton, NJ, USA, May 8, 2016.
- Younger Generations in Algebraic and Complex Geometry, National Taiwan University, Taiwan, January 12, 2016.
- Singularities and Invariants of Higher Dimensional Algebraic Varieties, Research Institute for Mathematical Sciences (RIMS), Kyoto, Japan, December 14, 2015.

INVITED SEMINAR  
TALKS

- University of Oslo Algebra Seminar, Oslo, Norway, April 3, 2025.
- Max Planck Institute for Mathematics Seminar Algebraic Geometry (SAG), Bonn, Germany, October 24, 2024.
- Bielefeld University Algebraic and Arithmetic Geometry Seminar, Bielefeld, Germany, May 15, 2024.
- EPFL Groups, Arithmetic and Algebraic Geometry Seminar, Lausanne, Switzerland, April 23, 2024.
- UCLA [Birational Geometry Seminar \(BGS\)](#), online, April 12, 2024.
- Leibniz University Hannover AG Seminar, Hannover, Germany, December 14, 2023.
- More Algebraic Geometry at the Hausdorff Institute (MAGHI), Bonn, Germany, October 23, 2023.
- UCSB Seminar on Geometry and Arithmetic, Santa Barbara, CA, USA, April 13, 2023.
- Purdue University AG Seminar, West Lafayette, IN, USA, March 22, 2023.
- UCLA Algebra Seminar, Los Angeles, CA, USA, March 3, 2023.
- FRAGMENT Seminar, University of Colorado Boulder, Boulder, CO, USA, January 19, 2023.
- University of Tokyo and Kyoto University Joint AG Seminar, online, July 1, 2021.
- [Zoom Algebraic Geometry \(ZAG\) Seminar](#), online, June 10, 2021.
- UCLA Algebra Seminar, online, May 13, 2021.
- Nihon University Singularity Seminar, online, April 26, 2021.
- University of Michigan AG Seminar, online, February 17, 2021.
- Princeton University AG Seminar, online, January 26, 2021.
- Washington University in St. Louis AG Seminar, St. Louis, MO, USA, December 13, 2019.
- AIM Workshop on Rationality problems in algebraic geometry, American Institute of Mathematics, San Jose, CA, USA, August 2, 2019.
- Nihon University Singularity Seminar, Tokyo, Japan, July 1, 2019.
- University of Tokyo AG Seminar, Tokyo, Japan, June 19, 2019.
- Johns Hopkins University AG Seminar, Baltimore, MD, USA, February 13, 2018.
- Nihon University Singularity Seminar, Tokyo, Japan, June 12, 2017.
- Tambara Summer School on Algebraic Geometry, Tambara, Japan, August 2, 2016.
- University of Tokyo AG Seminar, Tokyo, Japan, July 26, 2016.
- Nihon University Singularity Seminar, Tokyo, Japan, November 16, 2015.
- Waseda University AG Seminar, Tokyo, Japan, November 13, 2015.
- Tambara Summer School on Algebraic Geometry, Tambara, Japan, September 25, 2015.

SELECTED OTHER  
TALKS

- UCLA Undergraduate Math Colloquium, Los Angeles, CA, November 3, 2021.
- UIC Graduate Student Math Colloquium, Chicago, IL, March 20, 2019.

POSTER  
PRESENTATIONS

- Western Algebraic Geometry Symposium (WAGS), University of California, Riverside, Riverside, CA, November 5, 2022.
- Western Algebraic Geometry Symposium (WAGS), University of Pomona, online, November 14, 2020.

- Kinosaki Symposium on Algebraic Geometry, Kinosaki, Japan, October 21, 2015.
- AMS Summer Institute in Algebraic Geometry, University of Utah, Salt Lake City, UT, USA, July 16, 2015.

TEACHING  
EXPERIENCE

**University of California, Los Angeles** (Instructor)

|   |        |      |
|---|--------|------|
| Calculus of Several Variables (MATH 32A)          | Spring | 2023 |
| Analysis II (MATH 131B, 2 sections)               | Winter | 2023 |
| Calculus of Several Variables (MATH 32A)          | Fall   | 2022 |
| Introduction to Algebraic Geometry II (MATH 214B) | Spring | 2022 |
| Differential Geometry I (MATH 120A)               | Winter | 2022 |
| Analysis I (MATH 131A)                            | Winter | 2022 |
| Linear Algebra and Applications (MATH 33A)        | Fall   | 2021 |
| Analysis I (MATH 131A, 2 sections)                | Spring | 2021 |
| Calculus of Several Variables (MATH 32A)          | Winter | 2021 |
| Linear Algebra and Applications (MATH 33A)        | Fall   | 2020 |

**University of Illinois at Chicago** (Teaching Assistant)

|                         |      |      |
|-------------------------|------|------|
| Calculus III (MATH 210) | Fall | 2019 |
| Calculus I (MATH 180)   | Fall | 2018 |
| Precalculus (MATH 121)  | Fall | 2017 |
| Precalculus (MATH 121)  | Fall | 2016 |

**University of Tokyo** (Teaching Assistant)

|                |        |      |
|----------------|--------|------|
| Calculus       | Spring | 2016 |
| Linear Algebra | Spring | 2013 |

MENTORING  
EXPERIENCE

**Leibniz University Hannover**

Johannes Oertel, Master Thesis, Winter 2024/2025.

Ole Müller, Undergraduate Thesis, Summer 2024.

**University of California, Los Angeles**

Shend Zhjeqi, Research Experiences for Undergraduates (REU), Summer 2021.

SEMINARS AND  
WORKSHOPS  
ORGANIZED

- Peking University Algebraic Geometry Seminar (with J. Liu, Z. Tian, Q. Yin), Beijing, China, September 2025 - present.
- [Workshop on Algebraic Cycles](#) (with S. Schreieder and S. Torelli), Leibniz University Hannover, Hannover, Germany, September 30 - October 2, 2024.
- Research Learning Seminar on Tropical Degenerations and Stable Rationality, University of California, Los Angeles, Los Angeles, CA, USA, Fall 2020.
- Graduate Algebraic Geometry Seminar (with G. Taylor), University of Illinois at Chicago, Chicago, IL, USA, 2018-2020.
- Midwest Algebraic Geometry Graduate Conference (with Y. Dutta, J. Kopper, S. Mandel, S. Olano), University of Illinois at Chicago, Chicago, IL, USA, May 2018.

LANGUAGES

Japanese (native), English (fluent)