

# Fumiaki Suzuki

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CONTACT INFORMATION	Institute of Algebraic Geometry, Leibniz University Hannover Welfengarten 1, 30167 Hannover, Germany <a href="mailto:suzuki@math.uni-hannover.de">suzuki@math.uni-hannover.de</a> , <a href="https://fumiaki-suzuki.github.io/">https://fumiaki-suzuki.github.io/</a>
EMPLOYMENT	<b>Leibniz University Hannover</b> Wissenschaftlicher Mitarbeiter (postdoc), funded by the ERC Starting Grant “RationAlgic”, July 2023 - present, Mentor: Stefan Schreieder  <b>University of California, Los Angeles</b> Hedrick Assistant Adjunct Professor, July 2020 - June 2023, Mentor: Burt Totaro
EDUCATION	<b>University of Illinois at Chicago</b> Ph.D. in Mathematics, May 2020, Advisor: Lawrence Ein  <b>University of Tokyo</b> M.S. in Mathematics, March 2015, Advisor: Yujiro Kawamata B.S. in Mathematics, March 2013
VISITING POSITIONS	<ul style="list-style-type: none"><li>• Hausdorff Research Institute for Mathematics, Fellow for the Junior Trimester Program “Algebraic geometry: derived categories, Hodge theory, and Chow groups”, September - December 2023</li><li>• Mittag-Leffler Institute, Junior Fellow for the Research Program “Moduli and Algebraic Cycles”, August - December 2021 (visit canceled due to the pandemic)</li></ul>
AWARDS AND FELLOWSHIPS	<ul style="list-style-type: none"><li>• AMS-Simons Travel Grant, American Mathematical Society and Simons Foundation, 2021 - 2023</li><li>• Course Student of Leading Graduate Course for Frontiers of Mathematical Sciences and Physics (FMSP), University of Tokyo, 2013 - 2016</li></ul>
RESEARCH INTERESTS	Algebraic geometry, especially, algebraic cycles, birational geometry, and Hodge theory.
PUBLICATIONS AND PREPRINTS	<ol style="list-style-type: none"><li>11. <i>Arithmetic and birational properties of linear spaces on intersections of two quadrics</i> (with L. Ji), submitted. <a href="https://arxiv.org/abs/2402.18857">arXiv:2402.18857</a></li><li>10. <i>Two coniveau filtrations and algebraic equivalence over finite fields</i> (with F. Scavia), submitted. <a href="https://arxiv.org/abs/2304.08560">arXiv:2304.08560</a></li><li>9. <i>Non-injectivity of the cycle class map in continuous <math>\ell</math>-adic cohomology</i> (with F. Scavia), <b>Forum of Mathematics, Sigma</b> 11 (2023), e6, 19 pp. <a href="https://arxiv.org/abs/2208.06713">arXiv:2208.06713</a>, DOI:10.1017/fms.2023.1</li><li>8. <i>Non-algebraic geometrically trivial cohomology classes over finite fields</i> (with F. Scavia), submitted. <a href="https://arxiv.org/abs/2206.12732">arXiv:2206.12732</a></li><li>7. <i>Higher-dimensional Calabi-Yau varieties with dense sets of rational points</i>, <b>European Journal of Mathematics</b> 8 (2022), no. 1, 193–204. <a href="https://arxiv.org/abs/2102.12966">arXiv:2102.12966</a>, DOI:10.1007/s40879-021-00506-4</li></ol>

6. *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](#)
5. *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](#)
4. *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](#)
3. *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](#)
2. *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](#)
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](#)

#### INVITED TALKS

- Bielefeld University Algebraic and Arithmetic Geometry Seminar, Bielefeld, Germany, May 15, 2024.
- EPFL Groups, Arithmetic and Algebraic Geometry Seminar, Lausanne, Switzerland, April 23, 2024.
- [Birational Geometry Seminar \(BGS\)](#), online, April 12, 2024.
- North German Algebraic Geometry Seminar (NoGAGS), University of Oldenburg, Oldenburg, Germany, February 29, 2024.
- Leibniz University Hannover AG Seminar, Hannover, Germany, December 14, 2023.
- More Algebraic Geometry at the Hausdorff Institute (MAGHI), Bonn, Germany, October 23, 2023.
- MPS Conference on Higher Dimensional Geometry, Simons Center for Geometry and Physics, Stony Brook, NY, USA, May 10, 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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

- Undergraduate Math Colloquium, UCLA, Los Angeles, CA, November 3, 2021.
- Graduate Student Math Colloquium, University of Illinois at Chicago, 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.
- Kinoshita Symposium on Algebraic Geometry, Kinoshita, 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

**University of California, Los Angeles**

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

PROFESSIONAL  
ACTIVITY

- Co-organizer, Workshop on Algebraic Cycles, Leibniz University Hannover, Hannover, Germany, September 30 - October 2, 2024.
- Organizer, Research Learning Seminar on Tropical Degenerations and Stable Rationality, University of California, Los Angeles, Los Angeles, CA, USA, Fall 2020.
- Co-organizer, Graduate Algebraic Geometry Seminar, University of Illinois at Chicago, Chicago, IL, USA, 2018-2020.
- Co-organizer, Midwest Algebraic Geometry Graduate Conference, University of Illinois at Chicago, Chicago, IL, USA, May 2018.

LANGUAGES

Japanese (native), English (fluent)