

Johannes Schmitt

Personal Information

Born: 09.06.1991
Citizenship: German
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Employment

July 2023 - present. SwissMAP Research Fellow, ETH Zurich.
Sept. 2021 - June 2023. Postdoc, University of Zurich.
Host: Andrew Kresch
Sept. 2019 - Aug. 2021. Postdoc, University of Bonn and Max Planck Institute for Mathematics.
Host: Daniel Huybrechts

Education

Sept. 2014 - Aug. 2019. Ph.D. student in Mathematics, ETH Zurich.
Advisor: Rahul Pandharipande
Sept. 2012 - Sept. 2014. M.Sc. in Mathematics, ETH Zurich.
Thesis advisor: Brent Doran
Grade: 6.0 (best grade), Willi Studer Price of the ETH Zurich
Oct. 2009 - Sept. 2012. B.Sc. in Mathematics, Saarland University, Saarbrücken.
Thesis advisor: Jörg Eschmeier
Grade: 1.0 (best grade)

Research Interests

Algebraic geometry, Moduli spaces of curves, Algebraic stacks, Tautological cycles, Hurwitz spaces, Chow groups, Logarithmic intersection theory
Parameterized Complexity Theory

Grants

- Early.Postdoc Mobility Grant of Swiss National Science Foundation (09/2019 - 02/2021)

Awards and Fellowships

- Best Paper Award and Best Student Paper Award at IPEC conference 2018
- Willi Studer Prize of the ETH Zurich (2015)
- Scholarship from German Academic Scholarship Foundation/Studienstiftung (01/2010 - 06/2014)

Conference talks

- 06/2023. Helvetic Algebraic Geometry Seminar, Les Diablerets
- 03/2023. Moduli spaces: theory and coding, Les Diablerets
- 02/2023. Workshop on Logarithmic Geometry and Moduli spaces, University of Frankfurt
- 08/2021. Workshop on Integrability, Enumerative Geometry and Quantization, Simons Center for Geometry and Physics
- 03/2022. admcycles: coding intersection theory, Les Diablerets

- 06/2021. Enumerative geometry of surfaces, MFO Oberwolfach
- 01/2020. Moduli of Higgs bundles and holomorphic symplectic geometry, ETH Zurich
- 11/2019. Conference Algebraic Geometry and Complex Geometry, CIRM Luminy (short contributed talk)
- 10/2019. AIM workshop on Double ramification cycles and integrable systems, American Institute of Mathematics (San Jose)
- 07/2019. Sage days 100, University of Bonn
- 07/2019. GQT Colloquium, Den Dolder
- 02/2019. FRG Workshop on strata of abelian differentials and related topics, University of Michigan
- 06/2018. GAeL XXVI, University of Strasbourg
- 02/2018. Hurwitz cycles on the moduli of curves, HU Berlin
- 10/2017. Open Gromov-Witten theory, integrable hierarchies and mirror symmetry, ETH Zurich
- 10/2017. Moduli of curves in Gothenburg, Chalmers University of Technology Gothenburg
- 02/2017. Conference on Moduli of curves, sheaves, and K3 surfaces, HU Berlin
- 08/2016. Workshop on Moduli Spaces, Mirror Symmetry and Enumerative Geometry, ICTP Trieste (short contributed talk)

Seminar talks

- 08/2022. Combinatorial Algebraic Geometry Seminar, University of Tübingen
- 10/2021. Algebraic Geometry Seminar, UC San Diego
- 11/2020. Oberseminar - Algebraic Geometry and Arithmetic, University of Duisburg-Essen
- 11/2020. Algebra, geometry and number theory seminar, University of Leiden
- 09/2020. Algebraic geometry and moduli seminar, ETH Zurich
- 05/2020. Algebraic geometry and moduli seminar, ETH Zurich
- 04/2020. Seminar for Algebraic Geometry, University of Bonn
- 12/2019. Seminar for Algebraic Geometry, Mathematics Institute of Jussieu - Paris Rive Gauche
- 12/2019. Seminar for Algebraic Geometry, University of Versailles
- 11/2019. Seminar for Algebra and Geometry, University of Grenoble
- 11/2019. Algebraic Geometry Seminar, University of Cambridge
- 11/2019. Seminar on Algebra, Geometry and Physics, Max-Planck Institute Bonn
- 09/2019. Algebraic geometry and moduli seminar, ETH Zurich
- 07/2019. Seminar for Algebra, Number Theory and Algebraic Geometry, University of Freiburg
- 05/2019. Seminar in Algebraic Geometry, University of Padova
- 02/2019. FRAGMENT seminar, University of Colorado
- 12/2018. Seminar for Algebraic Geometry, University of Bonn
- 02/2018. Algebraic geometry and moduli seminar, ETH Zurich
- 11/2017. Algebraic geometry and moduli seminar, ETH Zurich

- 10/2016. Algebraic geometry and moduli seminar, ETH Zurich
- 04/2016. Graduate student seminar, University of Basel
- 03/2015. Algebraic geometry and moduli seminar, ETH Zurich
- 01/2013. Functional analysis seminar, University of the Saarland

Teaching

Lectures

Introduction to computer algebra and mathematical programming (Spring 2022),
Selected Topics in Algebraic Geometry - The moduli space of curves (Summer 2020)

Student seminars

Topics in convex geometry (Fall 2022), Expander graphs (Fall 2021)

Head teaching assistantship

Algebra I (Fall 2018), Analysis II (Spring 2018), Algebraic Curves (Spring 2017), Algebraic Geometry (Spring 2016), Complex Analysis (Fall 2015, Fall 2017)

Teaching assistantship

Complex Analysis (Fall 2016), Topology (Spring 2015), Linear Algebra (Fall 2014), Differential geometry I, II (Fall 2013, Spring 2014)

Supervision of students

- Javier Sendra (Master's thesis, co-supervised with Georg Oberdieck, 2020-2021)
- Matthias Hippold (Master's thesis, 2020-2021)
- Zekun Ji (Master's thesis, 2020-2021)
- Xianyu Hu (Bachelor's thesis, 2020)
- Olga Trapeznikova (Master's thesis, co-supervised with Rahul Pandharipande, 2018)
- Ujjwol Paudel (Semester project, Fall 2016)

Organization

- Workshop "[Moduli spaces: theory and coding](#)" (Les Diablerets, February 2023)
- Workshop "[admcycles: coding intersection theory](#)" (Les Diablerets, March 2022)
- [Seminar on Algebraic Geometry, Physics, Gromov-Witten theory](#) (online, Fall 2020 - Summer 2021)
- [Working seminar on smooth compactifications and bChow intersections](#) (online, Summer 2020 - Spring 2021)
- Hausdorff School "[Perverse Sheaves in Enumerative Geometry](#)" (Bonn, February 2020)
- Zurich Graduate Colloquium in Mathematics (Fall 2015 - Fall 2019)
- Reading seminars "Algebraic stacks" (Fall 2015) and "Logarithmic geometry and moduli" (Spring 2018) at ETH Zurich

Services

- Referee for Algebraic Geometry (Foundation Compositio Mathematica), Research in the Mathematical Sciences, International Mathematics Research Notices, Duke Mathematical Journal, Forum of Math : Sigma, Annales de l'Institut Fourier, Selecta Mathematica, Advances in Mathematics, Compositio Mathematica
- Reviewer for AMS Mathematical Reviews
- Training supervisor at preparatory courses for the German Mathematical Olympiad (Fall 2013 - Fall 2016)

**Further
qualifications**

- Languages: German (native), English (fluent), French (basic to intermediate)
- “Learning to Teach” course (ETH, 2017)