

# Johannes Schmitt

## Personal Information

**Born:** 09.06.1991

**Citizenship:** German

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## Employment

**Sept. 2021 - present.** Postdoc, University of Zurich.

Advisor: Andrew Kresch

**Sept. 2019 - Aug. 2021.** Postdoc, University of Bonn and Max Planck Institute for Mathematics.

Advisor: 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, Geometric Invariant Theory, Algebraic stacks, Tautological cycles, Hurwitz spaces, Chow groups

## 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 Price of the ETH Zurich (2015)
- Scholarship from German Academic Scholarship Foundation/Studienstiftung (01/2010 - 06/2014)

## Conference talks

- 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

- 08/2021. 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

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

### Student seminars

Expander graphs (Fall 2021)

### Head teaching assistantship

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

### Teaching assistantship

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

## Supervision of students

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

## Organization

- 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
- Reviewer for AMS Mathematical Reviews
- Training supervisor at preparatory courses for the German Mathematical Olympiad (Fall 2013 - Fall 2016)