

Fabian Gundlach

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Education

- 2010–2012 **Bachelor's studies in mathematics (minor subject theoretical physics)**, *Ludwig Maximilian University of Munich*, Final grade 1.00 (best possible).
(Bachelor's thesis about Brauer–Manin obstructions for sums of two squares and a power; advisor: Ulrich Derenthal)
- 2013–2014 **Master's studies in mathematics**, *Ludwig Maximilian University of Munich*, Final grade 1.00 (best possible).
(Master's thesis about Del Pezzo surfaces fibrations of degree 4; advisors: Ulrich Derenthal, Yuri Tschinkel)
- Sep–Dec 2013 **Semester abroad in preparation for the master's thesis**, *New York University*.
- 2014–2019 **PhD studies in mathematics**, *Princeton University*.
(PhD thesis about parametrizing extensions with fixed Galois group; advisor: Manjul Bhargava)

Employment

- since 2019 **Benjamin Peirce Fellow**, *Harvard University*.

Publications

F. Gundlach. Integral Brauer–Manin obstructions for sums of two squares and a power. *J. London Math. Soc.*, 2(88):599–618, 2013.

Selected competitions and awards

Awards

- 2012 LMU research award for excellent students (for bachelor's thesis)
2015 Carathéodory prize (for master's thesis)

Mathematics competitions

- 2006: first prize, German Mathematical Olympiad (finals)
2007, 2008, 2009, 2010: second prize
2006/07, 2007/08, National Mathematics Competition (Bundeswettbewerb Mathematik)
2009/10, 2010/11: winner
2009: gold medal Middle European Mathematical Olympiad (individual),
third prize (team)
2010: silver medal International Mathematical Olympiad

2011: 17th place, Vojtěch Jarník International Mathematical Competition
2012: 10th place

Physics competitions

2008: silver medal, European Union Science Olympiad (team competition)
2009: gold medal

2009: silver medal, International Physics Olympiad
2010: gold medal

Informatics competitions

2007/08: winner National Informatics Competition

2009, 2010: gold medals Baltic Olympiad in Informatics

2009, 2010: gold medals International Olympiad in Informatics

2011, 2012: gold medals ACM International Collegiate Programming Contest (Norwest European Regional)

2013: first place ACM International Collegiate Programming Contest (Greater New York Regional)

2013: 32nd place, ACM International Collegiate Programming Contest (World Finals)
2014: 13th place (best North American team)

2015, 2017, 2018: World Google Code Jam
finals participant

Selected talks

2012 LMU Number Theory Oberseminar: *Brauer–Manin obstructions for sums of two squares and a power*

2015 Princeton Graduate Student Seminar: *Composition laws*

2017 Princeton Applied Math Graduate Student Seminar: *Integer factorization and primality testing*

2018 Princeton Graduate Student Seminar: *Dirichlet series with applications*

2018 MIT Number Theory Seminar: *Parametrizing field extensions*

2018 Hanover Number Theory and Arithmetic Geometry Seminar (Oberseminar Zahlentheorie und Arithmetische Geometrie): *Parametrizing field extensions*

Teaching experience

Courses

Spring 2018 Linear Algebra with Applications

Exercise sessions / Precepts

Winter 2012/13 Linear Algebra I

Summer 2013 Advanced Algebra

Summer 2014 Algebraic Number Theory I

Fall 2015 Algebraic Number Theory (Precept)

Selected Conferences

- 2013 Focus Research Group Workshop at Rice University: *Arithmetic and geometry of rational curves*
- 2015 Arizona Winter School: *Arithmetic and Higher-Dimensional Varieties*
- 2016 Arizona Winter School: *Analytic Methods in Arithmetic Geometry*
- 2016 Fields Medal Symposium in Honor of Manjul Bhargava

Other activities

- Helped running German olympiad selection and training camps: talks, task proposals, task preparation, grading, some work on contest management system for informatics competitions
- 2013 Scientific and Technical Committee of the Baltic Olympiad in Informatics
- 2014 Scientific and Technical Committee of the Central European Olympiad in Informatics