
Moritz Schick

Curriculum Vitae

Department of Mathematics and Statistics
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Personal Details

DATE OF BIRTH	May 21st 1997
NATIONALITY	German

Education

SEPTEMBER 2024	Expected Date of the Award of my PhD, University of Konstanz
SINCE OCTOBER 2020	Doctoral Studies in Mathematics , University of Konstanz Project Title: <i>The Convex Cone of Sums of Squares plus Sums of Nonnegative Circuit Polynomials (SOS+SONC)</i> Supervisor: Prof. Dr. Salma Kuhlmann. Co-Supervisor: Asst. Prof. Dr. Mareike Dressler
JUNE 29TH 2020	Master of Science in Mathematics University of Konstanz Grade: Very Good with Distinction
JANUARY 2018 -JUNE 2020	Master Program in Mathematics University of Konstanz
JANUARY 29TH 2018	Bachelor of Science in Mathematics Grade: Excellent
OCTOBER 2014 -JANUARY 2018	Bachelor Program in Mathematics University of Konstanz
JUNE 2014	Abitur Fürstenberg Gymnasium, Donaueschingen
2006-2014	Secondary School Fürstenberg Gymnasium, Donaueschingen
2003-2006	Elementary School Lucian-Reich-Schule, Hüfingen (skipped 2nd grade)

Theses in Mathematics

MASTER THESIS	Sum of Squares Representations of Convex Quarternary Quartics and Ternary Sextics http://nbn-resolving.de/urn:nbn:de:bsz:352-2-c2ktrauqawrq1 Supervisor: Prof. Dr. Salma Kuhlmann Grade: Very Good
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BACHELOR THESIS **Surreale Zahlen (Surreal Numbers)**
<http://nbn-resolving.de/urn:nbn:de:bsz:352-2-2w9l1j8hhg3p3>
Supervisor: Prof. Dr. Salma Kuhlmann
Grade: Excellent

Teaching Activities and Research Experience

- OCTOBER 2020 **University of Konstanz**
- SEPTEMBER 2023 Teaching Assistant for the Courses: *Real Algebraic Geometry II*,
Real Algebraic Geometry I, *Real Closed Fields and Integer Parts*,
Algorithmic Algebraic Geometry, *Seminar on Number Theory*,
Algebra I
- SEPTEMBER 2019 **HTWG Konstanz - University of Applied Sciences**
- FEBRUARY 2022 Lecturer: *Mathematics I for Automotive Information Technology*
- APRIL 2016 **University of Konstanz**
- SEPTEMBER 2021 Class Tutor for the Courses: *Support Course in Mathematics*,
Analysis III, *Algebra*, *Linear Algebra II*, *Linear Algebra I*,
Introduction Course for Freshman Students
- OCTOBER 2018 **University of Konstanz**
- MARCH 2019 Course Instructor for the *Integra program of the German*
Academic Exchange Service (DAAD), private lessons for refugees
in Mathematics and Physics
- APRIL 2018 **University of Konstanz**
- SEPTEMBER 2018 Research Associate: *Chair for Numerical Optimization*,
supervised by Jun. Prof. Gabriele Ciaramella
- 2011 **Fürstenber Gymnasium**
- 2014 Private Tutor under the *Program "Schwächen schwächen"*

Honors and Grants

- AUGUST 2022 **Travel Grant** from the *European Women in Mathematics*
(EWM): 400€
- MAY 2022 **Travel Grant** financed by the *Doctoral Fund of the University*
of Konstanz: 500€
- SINCE MARCH 2022 **Doctoral Scholarship** provided by the *German Academic*
Scholarship Foundation (Studienstiftung des deutschen Volkes)
offering financing (declined) and mentorship (accepted)
- SINCE OCTOBER 2021 **Doctoral Scholarship** provided by the University of
Konstanz and the Federal State Baden-Württemberg under the
Landesgraduiertenförderungsgesetz (LGFG, state law on funding
for doctoral studies)
- JANUARY 20TH 2021 **VEUK award for academic excellence** granted by the
Alumni Association of the University of Konstanz: 200€
- NOVEMBER 2020 - **Exposé Scholarship** provided the *German Academic*
APRIL 2021 *Scholarship Foundation*: 6600€

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- OCTOBER 2017 **Scholarship** provided by the *German Academic Scholarship*
 - JUNE 2020 *Foundation* offering financing and mentorship (both accepted)
- JUNE 2014 **Abitur Prize** granted by the *Deutsche Mathematiker-Vereinigung* (DMV, German Mathematical Society): award for outstanding highschool graduates
- 2017 **ITK–Student Award:** Prize for students with excellent performance in class and special engagement
- 2012/2013 **Gisela and Erwin Sick Award:** Prize for excellent performance in Mathematics and Natural Sciences
- 2008, 2011, 2012 **Sports Medal and Letter of Honor** granted by the *City of Donaueschingen*

Conferences and Taks

- MARCH 12TH-17TH 2023 **Real Algebraic Geometry with a View toward Koopman Operator Methods**
 Mathematisches Forschungsinstitut Oberwolfach (MFO, Oberwolfach Research Institute for Mathematics)
 Talk: *"The Minkowski Sum of Sums of Squares and Sums of Nonnegative Circuit Forms"*
- SEPTEMBER 21ST-23RD 2022 **Geometry in Complexity and Computations**
 Konstanz, Germany
- SEPTEMBER 12TH-16TH 2022 **25th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2022):**
 Bayreuth, Germany
 Invited Talk *"Combining the SOS and SONC cones - A Hilbert's 1888 Theorem analogue and further separation results"*
 - Invited Session *"Moment Problems, Convex Algebraic Geometry, and Semidefinite Relaxations"*
- AUGUST 22TH-26TH 2022 **European Women in Mathematics (EWM) General Meeting**
 Aalto University, Espoo/ Helsinki, Finland
 Invited Talk *"The Minkowski sum of the SOS and SONC cones - an inner approximation of the PSD cone"*
 - Session *"Real algebraic geometry in action with a view toward Optimization"*
- JUNE 20TH-24TH 2022 **Effective Methods in Algebraic Geometry (MEGA)**
 Kraków, Poland
 Poster Presentation *"Inner approximations of the PSD cone: What is SOS+SONC?"*
- SEPTEMBER 13TH-17TH 2021 **POEMA Learning Week 2**
 Toulouse, France (attended online)

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- MARCH 1ST-7TH 2020 **Real Algebraic Geometry with a View Toward Hyperbolic Programming and Free Probability**
 Mathematisches Forschungsinstitut Oberwolfach (MFO, Oberwolfach Research Institute for Mathematics)
- JANUARY 25TH 2020 **Donau–Rhein Model Theory and Applications (DRMTA), 5th Meeting**
 University of Konstanz

Voluntary Work

- SINCE WiSE 2021/2022 **Department of Mathematics and Statistics**
 Department Council: *Doctoral Students' Representative*
- SINCE MARCH 2021 **Faculty of Sciences**
 Doctoral Students' Convention: *Director*
- WiSE 2019/2020 **Department of Mathematics and Statistics**
 Appointment Committee: *Stochastic Analysis, Students' Representative*
- WiSE 2017/2018 **Faculty of Sciences**
 - WiSE 2019/2020 Faculty Council: *Students' Representative*
- SINCE WiSE 2016/2017 **Department of Mathematics and Statistics**
 Study Commission: *Students' Representative*
- SINCE 2015 **Department of Mathematics and Statistics**
 Student Council Mathematics and Statistics: *Member with different functions, such as Vice President, Webmaster, Representative in various committees*

Language and Computer Skills

- GERMAN Mother tongue
- ENGLISCH (C1)
- SPANISH (A2)
- ITALIAN (A1)
- MATLAB (very good)
- PYTHON (basic knowledge)
- LATEX (very good)
- HTML (basic knowledge)