

Maximilian Alexander Nitzschner

Curriculum Vitae

Personal Details

Date of birth August 11, 1993
Place of birth Dieburg, Germany
Citizenship German

Academic Positions

2020 – **Courant Instructor**, *NYU Courant Institute of Mathematical Sciences*, New York.

Education

- 2017 – 2020 **PhD in Mathematics**, *Eidgenössische Technische Hochschule*, Zürich.
Thesis title: Solidification of porous interfaces, disconnection and entropic repulsion
Advisor: Prof. Dr. Alain-Sol Sznitman
- 2015 – 2016 **Master of Science in Mathematics**, *Ruprecht-Karls-Universität*, Heidelberg.
Thesis title: Estimation of characteristics of multidimensional diffusion processes based on low-frequency observations
Advisors: Prof. Dr. Enno Mammen, Prof. Dr. Claudia Strauch
Final grade: 1.0
- 2014 – 2016 **Master of Science in Physics**, *Ruprecht-Karls-Universität*, Heidelberg.
Thesis title: A functional integral representation for the partition function of linearly coupled boson-fermion systems
Advisor: Prof. Dr. Manfred Salmhofer
Final grade: 1.0
- 2013 – 2015 **Bachelor of Science in Mathematics**, *Ruprecht-Karls-Universität*, Heidelberg.
Thesis title: Theory and implementation of a local linear quantile estimator for nonstationary time series
Advisor: Prof. Dr. Rainer Dahlhaus
Final grade: 1.0
- 2011 – 2014 **Bachelor of Science in Physics**, *Ruprecht-Karls-Universität*, Heidelberg.
Thesis title: Phase transitions and excitations in mixtures of Bose-Einstein condensates
Advisor: Prof. Dr. Thomas Gasenzer
Final grade: 1.0
- 2003 – 2011 **Abitur**, *Humboldt-Gymnasium*, Wiesbaden.
Final grade: 1.0 (839/840)

Scholarships

2013 – 2016 Scholarship of the German National Academic Foundation (*Studienstiftung des deutschen Volkes*)

Publications

- 1 M. Nitzschner and A.-S. Sznitman: Solidification of porous interfaces and disconnection, *J. Eur. Math. Soc.* **22**, 2629–2672 (2020).
- 2 M. Nitzschner: Disconnection by level sets of the discrete Gaussian free field and entropic repulsion, *Electron. J. Probab.* **23** (105), 1–21 (2018).
- 3 A. Chiarini and M. Nitzschner: Entropic repulsion for the Gaussian free field conditioned on disconnection by level-sets, *Probab. Theory Relat. Fields* **177** (1–2), 525–575 (2020).
- 4 A. Chiarini and M. Nitzschner: Entropic repulsion for the occupation-time field of random interacements conditioned on disconnection, *Ann. Probab.* **3** (48), 1317–1351 (2020).
- 5 A. Chiarini and M. Nitzschner: Disconnection and entropic repulsion for the harmonic crystal with random conductances, *Commun. Math. Phys.*, **386**, 1685–1745 (2021).

Talks

- Dec 2018 *Disconnection by level sets of the discrete Gaussian free field and entropic repulsion.* Oberseminar Stochastik, University of Cologne.
- May 2019 *Disconnection by Gaussian Free Field level sets and entropic repulsion.* Oberseminar Wahrscheinlichkeitstheorie, TU Munich.
- June 2019 *Disconnection in two percolation models with strong correlations.* Rencontre ANR/SNSF MALIN, Les Diablerets.
- Sep 2019 *Disconnection in two percolation models with strong correlations.* Probability and Mathematical Physics Seminar, New York University.
- Mar 2020 *Disconnection and entropic repulsion in two strongly correlated percolation models.* 14th German Probability and Statistics Days, Dresden, *Cancelled due to COVID-19 pandemic.*
- Feb 2021 *Disconnection and entropic repulsion for the harmonic crystal with random conductances.* Percolation Today seminar, ETH Zürich, Université de Genève, University of Cambridge, Online.
- Apr 2021 *Random interacements, the Gaussian free field and percolation.* PhD Students and Postdocs Probability Seminar, New York University, Online.
- Sep 2021 *Disconnection for the harmonic crystal with random conductances.* 15th German Probability and Statistics Days, Mannheim, Online, prerecorded short talk.
- Oct 2021 *Disconnection and entropic repulsion for the harmonic crystal with random conductances.* Probability and Stochastic Processes Seminar, University of Tennessee Knoxville, Online.
- Dec 2021 *Smoothness of the diffusion coefficients for particle systems in continuous space.* CASA Colloquium, TU Eindhoven, Online.

Teaching experiences

- Winter term **Tutorial.**
2013/14 for *Linear Algebra I* with Prof. Dr. H. Matzat. (Univ. Heidelberg)
- Winter term **Tutorial.**
2014/15 for *Introduction to Probability Theory and Statistics* with PD. Dr. K. Oelschläger (Univ. Heidelberg).
- Summer term **Tutorial.**
2015 for *Probability Theory I* with PD. Dr. J. Tadjuidje-Kamgaing (Univ. Heidelberg).
- Winter term **Tutorial.**
2015/16 for *Partial Differential Equations* with Prof. Dr. H. Knüpfer (Univ. Heidelberg).
- Winter term **Tutorial.**
2015/16 for *Theoretical Statistical Physics* with Prof. Dr. U. Schwarz (Univ. Heidelberg).
- Summer term **Tutorial and teaching assistance.**
2016 for *Probability Theory II* with Prof. Dr. J. Johannes (Univ. Heidelberg).
- Spring term **Tutorial.**
2017 for *Applied Stochastic Processes* with Prof. Dr. A.-S. Sznitman (ETH Zurich).
- Fall term **Tutorial and teaching assistance.**
2017 for *Mathematics III* with Prof. Dr. E. W. Farkas (ETH Zurich).
- Fall term **Teaching assistance.**
2018 for *Mathematics III* with Prof. Dr. N. Hungerbühler and Dr. A. Caspar (ETH Zurich).
- Spring term **Tutorial.**
2019 for *Applied Stochastic Processes* with Prof. Dr. V. Tassion (ETH Zurich).
- Fall term **Teaching assistance.**
2019 for *Mathematics III* with Prof. Dr. E. W. Farkas (ETH Zurich).
- Spring term **Tutorial.**
2020 for *Brownian Motion and Stochastic Calculus* with Prof. Dr. W. Werner (ETH Zurich).
- Fall term **Lecture.**
2020 on *Complex Variables I* (NYU Courant).
- Spring term **Lecture.**
2021 on *Probability And Statistics* (NYU Courant).
- Fall term **Lecture.**
2021 on *Theory of Probability* (NYU Courant).

Languages

- German native
English fluent
Latin 'Latinum'