Florian Huber

Education

2018–2022 PhD in Technical Mathematics,

Topic: Stochastic PDEs with cross-diffusion effects,

Supervisor: Univ.-Prof. Dr. Ansgar Jüngel.

Technische Universität Wien

2016–2017 Dipl.-Ing. (MSc.) in Technical Mathematics,

Master thesis: The stochastic heat equation in two dimensions and its connection to self-

intersection local time,

Supervisor: Univ.-Prof. Dr. Thorsten Rheinländer.

Technische Universität Wien

2011-2016 B.Sc. in Technical Mathematics,

Bachelor thesis: Classical mechanics on symplectic manifolds.

Technische Universität Wien

2010–2011 Bachelor of Business Administration, Dual Degree.

Graduate School of Business Studies Belgrade

2009-2011 **B.A.**, Global Business and International Relations.

International University Vienna

2016 KTH Stockholm, Erasmus program.

2009 Harvard University, Exchange student, International relations.

Employment

2022- current **Post-doctoral researcher**.

University of Vienna

2021–2022 Pre-doctoral researcher.

University of Vienna

2018–2021 Pre-doctoral researcher.

Technische Universität Wien

Research interests

Stochastic partial differential equations.

Interacting particle systems.

Rough Paths.

Publications and Preprints

- 1. M. Braukhoff, F. Huber, A. Jüngel. *Global martingale solutions for the stochastic Shigesade-Kawasaki-Teramoto population model.* submitted for publication. 2022.
- 2. G. Dhariwal, F. Huber, A. Neamtu. *On the Equivalence of Pathwise Mild and Weak Solutions For Quasilinear SPDEs.* Stochastic Analysis and Applications. 2020.
- 3. G. Dhariwal, F. Huber, A. Jüngel, C. Kuehn, A. Neamtu *Global martingale solutions for quasilinear SPDEs via the boundedness-by-entropy method.* Annales de l'Institut Henri Poincare (B) Probability and Statistics. Vol. 57, No. 1, 577–602 (2021)

Talks and Presentations

Cross-diffusion systems: analysis and stochastics, *Stochastic cross-diffusion systems*, 2023 (February/March), Konstanz, Germany.

Invited Talk

SPDEvent, *Stochastic cross-diffusion systems*, 2022 (September), Bielefeld, Germany. Contributed Talk

CSH Workshop: "Stochastic Dynamics for Complex Systems", *Stochastic cross-diffusion systems*, 2022, Vienna, Austria.

Invited Talk

11th World Congress of the Bachelier Finance Society, *Capital distribution curves in polynomial SPT models*, 2022, Online/Hong Kong.

Contributed Talk

Bernoulli-IMS One World Symposium 2020, Global Martingale Solutions for Quasilinear SPDEs via the Boundedness-by-entropy method, 2020, Online.

Contributed Talk

PDE Afternoon Vienna, Global Martingale Solutions for Quasilinear SPDEs via the Boundedness-by-entropy method, 2019, Vienna.

Invited Talk

Touch down of stochastic analysis in Bielefeld, Global Martingale Solutions for Quasilinear SPDEs via the Boundedness-by-entropy method, 2019, Bielefeld.

Poster Presentation

Conference in Stochastic Analysis and Applications, *Global Martingale Solutions for Quasi-linear SPDEs via the Boundedness-by-entropy method*, 2019, Risor, Norway.

Poster Presentation

Recents Trends in Stochastic Analysis and SPDEs, Global Martingale Solutions for Quasi-linear SPDEs via the Boundedness-by-entropy method, 2019, Pisa, Italy.

Poster Presentation

Teaching experience

- 2021 Mathematics 1 for Business Administration, Exercise Class Tutor, University of Vienna.
- 2020 Computational Finance, Exercise Class Organiser/Leader, Technische Universität Wien.
- 2018 **Computational Finance**, Exercise Class Organiser/Leader, Technische Universität Wien.

Academic Services

2019 Conference Co-Organiser of the Symposium *ViZuS* - Vienna-Zurich Symposium for young researchers in Financial Mathematics and related fields.

Reviewing activities

Stochastic Processes and Applications, Mathematical Finance, Stochastics.

Academic Visits

- 2019 Technical University of Munich, research visit.
- 2018 **Technical University of Munich**, research visit.

Conferences and summer school participations

SPDEvent, 2022.

Bielefeld, Germany

2nd IST Austria Summer School in Analysis and PDEs, 2022.

Klosterneuburg, Austria

Durham Days of Analysis and PDEs, 2022.

Online

Advances in Mathematical Finance and Optimal Transport, 2022.

Pisa, Italy

11th World Congress of the Bachelier Finance Society, 2022.

Online/Hong Kong

CSH Workshop: "Stochastic Dynamics for Complex Systems", 2022.

Vienna

Higher Structures Emerging from Renormalisation, 2022.

Vienna

CSH Workshop: "Stochastic Dynamics for Complex Systems", 2021.

Online

Noncommutative algebra, probability and analysis in action, 2021.

Online

Bath Mathematical Symposium on PDE and Randomness, 2021.

Online

Stochastic Processes, Analysis and Semigroups, 2021.

Online/Wuppertal, Germany

14th European Summer School in Financial Mathematics, 2021.

Vienna

Stochastic Analysis and Hermite Sobolev Spaces, 2021.

Online

Young Researchers between Geometry and Stochastic Analysis 2021, 2021.

Online

SPDEs & friends, 2021.

Online

Stochastic analysis afternoon 2021, 2021.

Online

Stochastic processes & their friends, 2021.

Online

Bernoulli-IMS One World Symposium 2020, 2020.

Online

ViZuS - Vienna-Zurich Symposium for young researchers in Financial Mathematics and related fields, 2019.

Vienna, Austria

Touch down of stochastic analysis in Bielefeld, 2019.

Bielefeld/Germany

Conference in Stochastic Analysis and Applications, 2019.

Risor, Norway

Recents Trends in Stochastic Analysis and SPDEs, 2019.

Pisa, Italy

Vienna Congress on Mathematical Finance, 2019.

Vienna, Austria

Sarajevo Stochastic Analysis Winter School, 2019.

Sarajevo, Bosnia and Herzegovina

IST Austria Summer School in Probability and Mathematical Physics, 2018.

Klosterneuburg, Austria

Conference on Stochastic Partial Differential Equations, 2018.

Marseille, France

Technical Skills

Programming -languages

Python Advanced R Basic

Matlab Basic C Basic

 ${\sf Machine \ \ Tensorflow/Keras, \, PyTorch, \, scikit-learn}$

Learning Frameworks

GitHub https://github.com/FlorianHuber-Math

Languages

German Native

English Fluent

Italian Intermediate

Swedish Beginner