

## 1 Overview

**Date of birth** June 28, 1992, in Pegnitz (Germany)

**Affiliation** Columbia University  
Department of Statistics  
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## 2 Employment and Education

- *Assistant Professor*, Columbia University, Department of Statistics, since July 2020
- *Postdoctoral researcher* (with Robert Dalang): EPFL, September 2017–August 2020
- *Postdoctoral researcher* (with Claudia Klüppelberg): TU Munich, October 2015–August 2017
- *PhD in Mathematics (summa cum laude)*: TU Munich, 2015, with Claudia Klüppelberg and Jean Jacod
- Member of the PhD program TopMath at TU Munich (Fast-track PhD program directly after the Bachelor degree), 2012–2015

## 3 Awards and Grants

- Research Grant at the German Research Foundation (DFG): Grant number KL 1041/7-1, *Statistical Analysis of Tempo–Spatial Stochastic Integral Processes*, with Claudia Klüppelberg, 36 months, granted amount of 191,500 €
- PhD Thesis Award at TU Munich (best PhD Thesis of the year in mathematics, award money of 1,500 €)
- Teaching Award “Golden Compass” (with Claudia Klüppelberg) for the course “Introduction to Mathematical Statistics”
- TopMath Award 2015 (best out of 40 TopMath students, award money of 500 €)
- PhD scholarship of the German Academic Scholarship Foundation (Studienstiftung des deutschen Volkes), 2013–2015

## 4 Teaching Experience

### 4.1 Lecturer of Master Courses

Probability Theory, EPFL, fall 2018/19 and 2019/20

### 4.2 Teaching Assistant for Master Courses

Stochastic Calculus, EPFL, fall 2017/18

Stochastic Analysis, TU Munich, fall 2015/16 and 2016/17

### 4.3 Teaching Assistant for Bachelor Courses

#### For students in mathematics:

Measure and Integration, TU Munich, fall 2015/17 and 2016/17

Seminar on Graphical Models, TU Munich, fall 2016/17

Introduction to Mathematical Statistics, TU Munich, spring 2016

Markov Chains, TU Munich, fall 2012/13

Analysis 3, TU Munich, fall 2012/13

Analysis 1, TU Munich, fall 2011/12

#### For students in other departments:

Mathematics in Natural and Economic Sciences, TU Munich, fall 2013/14

Statistics for Economic Sciences, TU Munich, spring 2013

Mathematics for Electrical Engineering, TU Munich, spring 2012

### 4.4 Co-Supervision of Students

- PhD Thesis: “Weak convergence of stochastic PDEs” (Thomas Delerue, TU Munich, ongoing)
- Master Thesis: “Stochastic Partial Differential Equations” (EPFL, 2018)  
Master Thesis: “Simulation of Stochastic Partial Differential Equations” (TU Munich, 2015)  
Bachelor Project: “Path Properties of Brownian Motion” (EPFL, 2020) Bachelor Project: “Random Walks” (EPFL, 2019)  
Bachelor Thesis: “Decomposable Graphical Models for the Multivariate Normal Distribution” (TU Munich, 2017)  
Bachelor Thesis: “Lévy-Driven Tempo-Spatial Ornstein-Uhlenbeck Processes” (TU Munich, 2015)

### 4.5 Mentoring of Students

Tutor for preparatory courses in mathematics: TU Munich, fall 2010/11, 2011/12, 2012/13

Mentor for first-year Bachelor students: TU Munich, fall 2010/11, 2011/12, 2012/13

## 5 Publications

1. Chong, C.: High-frequency analysis of parabolic stochastic PDEs. *The Annals of Statistics*, 48(2):1143–1167, 2020.
2. Chong, C., and Dalang, R.C.: Power variations in fractional Sobolev spaces for a class of parabolic stochastic PDEs. Submitted, 2020. Preprint under arXiv:2006.15817.
3. Chong, C., and Delerue, T.: Normal approximation of the solution to the stochastic heat equation with Lévy noise. *Stochastics and Partial Differential Equations: Analysis and Computations*, 8(2):362–401, 2020.
4. Chong, C., and Kevei, P.: The almost-sure asymptotic behavior of the solution to the stochastic heat equation with Lévy noise. *The Annals of Probability*, 48(3):1466–1494, 2020.
5. Chong, C.: High-frequency analysis of parabolic stochastic PDEs with multiplicative noise: Part I. Submitted, 2019. Preprint under arXiv:1908.04145.
6. Chong, C., Dalang, R.C., and Humeau, T.: Path properties of the solution to the stochastic heat equation with Lévy noise. *Stochastics and Partial Differential Equations: Analysis and Computations*, 7(1):123–168, 2019.
7. Chong, C., and Kevei, P.: Intermittency for the stochastic heat equation with Lévy noise. *The Annals of Probability*, 47(4):1911–1948, 2019.
8. Chong, C., and Klüppelberg, C.: Partial mean field limits in heterogeneous networks. *Stochastic Processes and their Applications*, 129(12):4998–5036, 2019.
9. Chong, C., and Klüppelberg, C.: Contagion in financial systems: A Bayesian network approach. *SIAM Journal on Financial Mathematics*, 9(1):28–53, 2018.
10. Pham, V.S., and Chong, C.: Volterra-type Ornstein–Uhlenbeck processes in space and time. *Stochastic Processes and their Applications*, 128(9):3082–3117, 2018.
11. Chong, C.: Stochastic PDEs with heavy-tailed noise. *Stochastic Processes and their Applications*, 127(7):2262–2280, 2017.
12. Chong, C.: Lévy-driven Volterra equations in space and time. *Journal of Theoretical Probability*, 30(3):1014–1058, 2017.
13. Chen, B., Chong, C., and Klüppelberg, C.: Simulation of stochastic Volterra equations driven by space–time Lévy noise. In Podolskij, M., Stelzer, R., Thorbjørnsen, S., and Veraart, A.E.D., editors, *A Fascination of Probability, Statistics and their Applications*, pages 209–229. Springer, Cham, 2016.
14. Behme, A., Chong, C., and Klüppelberg, C.: Superposition of COGARCH processes. *Stochastic Processes and their Applications*, 125(4):1426–1469, 2015.
15. Chong, C., and Klüppelberg, C.: Integrability conditions for space–time stochastic integrals: Theory and applications. *Bernoulli*, 21(4):2190–2216, 2015.

## 6 International Conferences and Talks

**2020 Virtual Seminar on Stochastic Analysis, Random Fields and Applications, online, July 2**

Invited Talk: “High-frequency analysis of parabolic stochastic PDEs with multiplicative noise”, 25 min

**Seminar on Stochastic Processes, East Lansing, USA, March 5**

Contributed Poster: “Asymptotic behavior of the stochastic heat equation with Lévy noise”

**Stochastics Seminar, Salt Lake City, USA, March 2**

Invited Talk: “Asymptotic behavior of the stochastic heat equation with Lévy noise”, 60 min

**Columbia Mathematical Finance Seminar, New York, USA, January 30**

Invited Talk: “High-frequency analysis of SPDEs (and how it relates to rough volatility estimation)”, 45 min

**2019 London Mathematical Finance Seminar, London, UK, December 12**

Invited Talk: “High-frequency analysis of SPDEs (and how it relates to rough volatility estimation)”, 45 min

**Seminar Dynamics, Munich, Germany, November 11**

Invited Talk: “The almost sure asymptotic behavior of the solution to the stochastic heat equation with Lévy noise”, 45 min

**Seminar of Probability, Barcelona, Spain, November 6**

Invited Talk: “High-frequency analysis of parabolic stochastic PDEs with multiplicative noise”, 45 min

**Statistical Inference for Stochastic PDEs, Berlin, Germany, September 18–20**

Invited Talk: “Volatility estimation for parabolic stochastic PDEs: The case of multiplicative noise”, 50 min

**Fourth Conference on Ambit Fields and Related Topics, Sønderborg, Denmark, August 5–8**

Invited Talk: “High-frequency analysis of parabolic stochastic PDEs with multiplicative noise”, 35 min

**Workshop on the Theory and Applications of Stochastic Partial Differential Equations, Toronto, Canada, June 10–14**

Invited Talk: “The almost sure asymptotic behavior of the solution to the stochastic heat equation with Lévy noise”, 45 min

**Stochastic Models, Statistics and their Applications, Dresden, Germany, March 6–8**

Invited Talk: “High-frequency analysis of parabolic stochastic PDEs”, 25 min

**2018 Harmonic Analysis for Stochastic PDEs, Delft, Netherlands, July 10–13**

Contributed Talk: “Intermittency for the stochastic heat equation with Lévy noise”, 30 min

**The 40th Conference on Stochastic Processes and their Applications, Gothenburg, Sweden, June 11–15**

Contributed Talk: “Path regularity of the solution to the stochastic heat equation with Lévy noise”, 20 min

**Stochastic Partial Differential Equations, Marseille, France, May 14–18**

Contributed Talk: “Path regularity of the solution to the stochastic heat equation with Lévy noise”, 20 min

**Seminar on Probability and Statistics, Szeged, Hungary, April 25**

Invited Talk: “Path properties of the solution to the stochastic heat equation with Lévy noise”, 60 min

**13th German Probability and Statistics Days 2018, Freiburg, Germany, February 27–March 2**

Contributed Talk: “Intermittency for the stochastic heat equation with Lévy noise”, 20 min

Contributed Talk: “Volatility estimation for stochastic PDEs”, 20 min

**2017 Advances in Stochastic Analysis for Risk Modeling, Marseille, France, November 13–17**

Invited Talk: “Volatility estimation for stochastic PDEs”, 15 min

**Seminar on Statistics and Risk Management, Munich, Germany, September 18**

Invited Talk: “Path regularity of the solution to the stochastic heat equation with Lévy noise”, 45 min

**Second Conference on Ambit Fields and Related Topics, Aarhus, Denmark, August 14–16**

Invited Talk: “Intermittency for the stochastic heat equation with Lévy noise”, 30 min

**The 39th Conference on Stochastic Processes and their Applications, Moscow, Russia, July 24–28**

Contributed Talk: “Intermittency and moment growth indices for stochastic PDEs driven by Lévy noise”, 25 min

**Thera Stochastics: A Mathematics Conference in Honor of Ioannis Karatzas, Santorini, Greece, May 31–June 2**

Poster: “Intermittency and moment growth indices for stochastic PDEs driven by Lévy noise”

**Seminar of Probability and Stochastic Processes at EPFL, Lausanne, Switzerland, April 4**

Invited Talk: “Intermittency and moment growth indices for stochastic PDEs driven by Lévy noise”, 45 min

**13th Workshop on Stochastic Models, Statistics and Their Applications, Berlin, Germany, February 20–24**

Contributed Talk: “Volatility estimation for stochastic PDEs and related processes”, 30 min

**2016 Seminar on Financial and Actuarial Mathematics, Munich, Germany, November 14**

Invited Talk: “Contagion in Financial Systems: A Bayesian Network Approach”, 45 min

**Seminar of Probability and Stochastic Processes at EPFL, Lausanne, Switzerland, November 15**

Invited Talk: “Volatility estimation for stochastic PDEs and related processes”, 45 min

**Conference on Conditional Independence Structures and Extremes, Munich, Germany, October 12–14**

Poster: “Contagion in Financial Systems: A Bayesian Network Approach”

**Stochastic Partial Differential Equations and Related Fields, Bielefeld, Germany, October 10–14**

Contributed Talk: “Stochastic PDEs with heavy-tailed noise”, 30 min

**7th CEQURA Conference on Advances in Financial and Insurance Risk Management, Munich, Germany, September 26–27**

Contributed Talk: “Contagion in Financial Systems: A Bayesian Network Approach”, 15 min

**Network Science and its Applications, Cambridge, UK, August 22–26**

Contributed Talk: “Contagion in Financial Systems: A Bayesian Network Approach”, 15 min

**Conference on Ambit Fields and Related Topics, Aarhus, Denmark, August 15–18**

Invited Talk: “Stochastic PDEs with heavy-tailed noise”, 40 min

**Stochastic Partial Differential Equations, Stony Brook, USA, May 16–20**

Participation in conference

**Probabilistic Models—from Discrete to Continuous, Warwick, UK, March 29–April 2**

Participation in conference

**12th German Probability and Statistics Days, Bochum, Germany, March 1–4**

Contributed Talk: “Stochastic PDEs driven by Lévy noise: Theory and simulation”, 20 min

**2015 Stochastic Limit Analysis for Reacting Particle Systems, Berlin, Germany, December 16–18**

Participation in conference

**Journées à la mémoire de Marc Yor, Paris, France, June 3–5**

Participation in conference

**AHOI Workshop on Tempo-Spatial Stochastic Processes and Stochastic Volatility, London, UK, February 23–24**

Invited Talk: “Simulation of stochastic Volterra equations driven by space–time Lévy noise”, 35 min

**2014 Systemic Risk: Mathematical Modelling and Interdisciplinary Approaches, Cambridge, UK, September 22–October 17**

Contributed Talk: “Systemic risk modelling through SDEs in an inhomogeneous network”, 60 min

**Workshop on Stochastic Processes, Aarhus, Denmark, April 21–25**

Invited Talk: “Stochastic Volterra equations driven by a Lévy basis”, 45 min

**11th German Probability and Statistics Days, Ulm, Germany, March 4–7**

Contributed Talk: “Boundedness of solutions to SPDEs driven by a Lévy basis”, 20 min

**2013 Risk Management Reloaded, Munich, Germany, September 9–13**

Invited Talk: “Superposition of COGARCH processes”, 30 min

**Building Bridges: Probability, Statistics and Applications, Brunswick, Germany, August 13–16**

Invited Talk: “Space–time integrals with applications to stochastic PDEs”, 20 min

**AHOI Workshop on Ambit Stochastics and Applications, London, UK, March 25–27**

Invited Talk: “Space–time stochastic integration with applications to ambit processes”, 40 min

**2012 AHOI Workshop on Ambit Stochastics, Ebeltoft, Denmark, November 11–14**

Participation in conference