

## Curriculum vitae: Dr. Math. Lukas Wresch

### Contact:

---

**E-mail:** wresch@math.uni-bielefeld.de

**Homepage:** <http://www.math.uni-bielefeld.de/~wresch>

**Address:** Fakultät für Mathematik,  
Universität Bielefeld,  
Universitätsstraße 25,  
33615 Bielefeld,  
Germany

### Personal:

---

**Born:** 06.04.1989 in Bielefeld, Germany

**Nationality:** German

**Family status:** single

**Gender:** male

**Position:** Scientific Assistant (Wissenschaftlicher Mitarbeiter)

### Research interests:

---

- Stochastic Analysis
- Regularization by Noise
- Path-by-Path Uniqueness
- Rough Path Theory
- Regularity Structures

### Education:

---

**since 2017:** PostDoc in Mathematics, Bielefeld University (Germany),

**2014–2017:** PhD studies in Mathematics, Bielefeld University (Germany),  
supervised by Prof. M. Röckner

**2012–2014:** Study of Mathematics and Physics, Bielefeld University, Diploma (2013),  
supervised by Prof. M. Röckner

**2008–2012:** Study of Mathematics and Physics, Bielefeld University, Bachelor of Science (2011),  
supervised by Prof. M. Röckner

### Career:

---

**since 2017:** Scientific Assistant, Sonderforschungsbereich 1283, Bielefeld University

**2014–2017:** Research Assistant, Faculty of Mathematics, Bielefeld University

**2014–2014:** Research Assistant, Sonderforschungsbereich 701, Bielefeld University

**2012–2014:** Student Assistant, Sonderforschungsbereich 701, Bielefeld University

**2011–2012:** Research Assistant, Numerical Simulations and Field Theory on the Lattice,  
Faculty of Physics, Bielefeld University

**2011–2012:** Student Assistant, Tutor, Faculty of Mathematics, Bielefeld University

### Teaching:

---

**since 2018:** Supervision of Master thesis in stochastic analysis

**since 2018:** Teaching assistant for “Selected Topics from Stochastic Analysis”

**2017–2018:** Teaching assistant for “Introduction to Stochastic Partial Differential Equations II”

**2016:** Supervision of two Bachelor theses in probability theory

**2011–2012:** Tutor for the Faculty of Mathematics in Analysis

### Professional affiliations and memberships:

---

**since July 2017:** Member of the SFB 1283 in Bielefeld

**since November 2014:** Member of the BGTS (Bielefeld Graduate School in Theoretical Sciences)

**since April 2014:** Associated member of the IRTG 1132 Stochastics and Real World Models  
between Beijing and Bielefeld

**since October 2013:** Associated member of project B4 of the SFB 701 in Bielefeld

### Stipendia:

---

**2015:** BGTS Mobility Grant of the Bielefeld Graduate School in Theoretical Sciences (BGTS)

### Scientific activities:

---

**2018:** Local Organizer of “The 9th International Conference on Stochastic Analysis and Its Applications”  
(ICSAA)

**since 2017:** Reviewer of “Journal of Mathematical Analysis and Applications” (JMAA)

### Talks:

---

- Path-by-Path Uniqueness in Infinite Dimensions, Leipzig (2017)
- Path-by-Path Uniqueness for SDEs in Hilbert spaces, Kaiserslautern (2017)
- Path-by-Path Uniqueness for SDEs in infinite dimensions, Funchal (2017)
- Path-by-Path Uniqueness for SDEs in Hilbert spaces, Edinburgh (2017)
- Path by path uniqueness for SDE in Hilbert spaces, Bielefeld (2017)
- A short overview of my PhD thesis: Path by path uniqueness for SDE in Hilbert spaces, Bielefeld (2017)
- An introduction to Individual Path Uniqueness, Bielefeld (2016)
- An overview of path-by-path solutions: Part II, Edinburgh (2015)
- An overview of path-by-path solutions, Edinburgh (2015)
- Path-by-path solutions to stochastic differential equations, Darmstadt (2015)  
<http://www.mathematik.tu-darmstadt.de/fbereiche/stochastik/WinterSchool2015/programme.html>

- A rough Introduction to Rough Path Theory, Bielefeld (2015)  
<http://www.math.uni-bielefeld.de/sfb701/talks/view/3791>
- Brownsche Bewegung und stochastische Integration, Bielefeld (2014)  
<http://www.math.uni-bielefeld.de/~stuquium>
- A. V. Shaposhnikov's Approach to Davie's Uniqueness Theorem, Bielefeld (2014)  
<http://www.math.uni-bielefeld.de/sfb701/talks/view/3340>
- A. M. Davie's approach to path-by-path solutions of SDEs, Bielefeld (2013)  
<http://www.math.uni-bielefeld.de/sfb701/talks/view/2881>
- On uniqueness of ODEs perturbed by a Brownian path, Bielefeld (2013)  
<http://www.math.uni-bielefeld.de/sfb701/talks/view/2782>

#### Attendance at conferences and seminars:

---

- 05.03 – 09.03 2018:** 3. gemeinsamen Jahrestagung der Deutschen Mathematiker-Vereinigung (DMV) und der Gesellschaft für Didaktik der Mathematik (GDM), (Paderborn, Germany)
- 29.11 – 01.12 2017:** Berlin-Leipzig workshop in analysis and stochastics, (Leipzig, Germany)
- 28.09 – 30.09 2017:** Stochastic Spin Systems: models, theory, simulation and real world applications, (Bielefeld, Germany)
- 04.09 – 08.09 2017:** Japanese-German Open Conference on Stochastic Analysis 2017, (Kaiserslautern, Germany)
- 31.07 – 07.08 2017:** Infinite dimensional analysis and applications, (Funchal, Portugal)
- 03.07 – 07.07 2017:** International Workshop on BSDEs, SPDEs and their Applications, (Edinburgh, United Kingdom)
- 14.06 – 17.06 2017:** Ninth Workshop on Random Dynamical Systems, (Bielefeld, Germany)
- 03.06 – 03.06 2017:** 39. Nordwestdeutsches Funktionalanalysis Kolloquium, (Bielefeld, Germany)
- 29.05 – 02.06 2017:** Nonlinear PDEs, stochastic control and filtering: new methods and applications, (Edinburgh, United Kingdom)
- 27.03 – 31.03 2017:** Warwick EPSRC Symposium: Stochastic PDEs: Analysis and Computation, (Warwick, United Kingdom)
- 22.02 – 25.02 2017:** Fifth Bielefeld-SNU Joint Workshop in Mathematics, (Bielefeld, Germany)
- 10.10 – 14.10 2016:** Stochastic Partial Differential Equations and Related Fields, Bielefeld, Germany
- 10.09 – 12.09 2016:** Conference on Stochastic Analysis in Honor of István Gyöngy's 65th Birthday, (Edinburgh, United Kingdom)
- 22.08 – 26.08 2016:** Singular Random Dynamics, (Cetraro, Italy)
- 03.08 – 05.08 2016:** 12. Doktorandentreffen Stochastik, (Bielefeld, Germany)
- 13.06 – 17.06 2016:** The 8th International Conference on Stochastic Analysis and Its Applications, (Beijing, China)
- 29.03 – 02.04 2016:** Probabilistic models - from discrete to continuous, (Warwick, United Kingdom)
- 23.02 – 24.02 2016:** Fourth Bielefeld-SNU Joint Workshop in Mathematics, (Bielefeld, Germany)
- 17.02 – 19.02 2016:** Winterschool Stochastic Homogenization, Augsburg, Germany
- 26.01 – 29.01 2016:** Analysis, PDE's, and Geometry, (Princeton, U.S.A.)

**16.09 – 18.09 2015:** 2nd Maxwell Institute Graduate School on Evolution Equations,  
(Edinburgh, United Kingdom)

**10.09 – 11.09 2015:** Maxwell Colloquium in Applied Probability, (Edinburgh, United Kingdom)

**27.07 – 07.08 2015:** Stochastic Processes and Applications, (Ulaanbaatar, Mongolia)

**11.05 – 15.05 2015:** MASDOC Summer School: Topics in renormalisation group and  
regularity structures, (Warwick, United Kingdom)

**23.03 – 27.03 2015:** Winter School: Stochastic Analysis of Spatially Extended Models,  
(Darmstadt, Germany)

**22.09 – 25.09 2014:** China-Germany Conference on Stochastic Analysis, (Hefei, China)

**10.09 – 12.09 2014:** Workshop on Stochastics and Dynamics on the occasion of  
Michael Scheutzow's 60th birthday, (Berlin, Germany)

#### **Publications:**

---

- L. Wresch, *On uniqueness of ODEs perturbed by a Brownian path*, BiBoS Additional Preprints (2013).
- L. Wresch, *An exponential estimate for Hilbert space-valued Ornstein–Uhlenbeck processes*, arXiv Preprint:1612.07745 (2016).
- L. Wresch, *Path-by-path uniqueness of infinite-dimensional stochastic differential equations*, arXiv Preprint:1706.07720 (2017).
- L. Wresch, *Path by Path Uniqueness for Stochastic Differential Equations in Infinite Dimensions*, PhD Thesis (2017).