Room E.01 Helmholtzstr. 18 89081 Ulm, Germany

Lukas Niebel

PhD Student at Ulm University

+49 157 83632890 lukasniebel.github.io lukas.niebel@uni-ulm.de

EDUCATION

PhD student since 04/2019

Ulm University

- Working title: Analytic aspects of kinetic partial differential equations.
- · Advisor: Prof. Dr Rico Zacher.

M.Sc. Mathematics 03/2018 — 03/2019

Ulm University

- Thesis: Kolmogorov equations Well-posedness, regularity, asymptotics and Harnack inequalities.
- Grade: 1.0 with distinction, awarded for the best graduation.
- During my master's studies, I focused on Analysis by taking courses on the calculus of variations, evolution equations, functional calculus, partial differential equations and optimal transport. This was supported by courses in applied mathematics, such as numerical finance, as well as a series of lectures on econophysics.

B.Sc. Mathematics 10/2014 — 02/2018

Ulm University

- Thesis: Long-time behaviour of Markov chains by discrete functional inequalities and entropic Ricci curvature.
- Grade: 1.1 with distinction, awarded for the best graduation.

Abitur, Joachim-Hahn-Gymnasium Blaubeuren

06/2014

Junior studies in mathematics, Fernuniversität Hagen and PfH Göttingen

04/2013 — 09/2014

WORKING AND TEACHING EXPERIENCE

Pre-doctoral fellow Since 10/2022

Ulm University

- Head of teaching assistants for Analysis 1.
 Creation and presentation of exercises supplementary to the lectures, responsible for the student assistants.
 Assisting in the creation and correction of the exams.
- · Local coordinator for the 26th Internetseminar.

Teaching assistant 03/2020 — 10/2022

University of Applied Sciences Neu-Ulm

• Design and supervision of a supplementary course on statistics and applications for first-year students in business psychology with an emphasis on programming in R.

 $Pre-doctoral \ fellow \\ 04/2019-10/2019$

Ulm University

- Head of teaching assistants for Analysis 1.
- Organisation of the Trainingscamp, a four-week annual event for approx. 400 first-year students to refresh
 their mathematical skills before the start of their studies.

Scientific assistant 10/2017-03/2019

Ulm University

· Head of teaching assistants for Analysis 2, Dynamical Systems and Elements of Functional Analysis.

Working student 03/2015 — 03/2019

Daimler AG Research & Development

- Statistical analysis with Matlab and Excel.
- Supervising the operation of a quasi-static tension-compression testing machine.

Student assistant 10/2015 — 09/2017

Ulm University

• Tutor for the Mathlabs for Analysis 1 and Analysis 2.

AWARDS AND SCHOLARSHIPS

Travel grant by the ProTrainU Mobility-Programme, Ulm University (1000 €)	06/2022
Master graduation award "Absolventenpreis M.Sc. Mathematik Uni Ulm 2020" for the best graduation (500 €)	04/2022
Graduate scholarship granted by the State of Baden-Wuerttemberg, Germany (52.200 €)	since 11/2019
Bachelor graduation award "Absolventenpreis B.Sc. Mathematik Uni Ulm 2018" for the best graduation (500 €)	05/2018
Ferry Porsche award and graduation award of the "Deutsche Physikalische Gesellschaft"	06/2014

VOLUNTEER WORK

VOLUNTEER WORK	
Elected member of the council of PhD students at Ulm University Representing the interests of doctoral students in university committees, e.g. for the change of the PhD regulations. Chair of the council of PhD students (12/2021 — 09/2022).	02/2021 — 09/2022
Elected member of the faculty council for Mathematics and Economic Sciences at Ulm University	02/2021 — 09/2022
Member of the Academic Student Council Mathematics	07/2021 - 03/2022 $07/2017 - 03/2019$
• Member of the appointment committee for a professorship in "Stochastics".	01/2011 03/2013
OTHER SCIENTIFIC ACTIVITIES	
Supporting the organisation of the summer school "Horizons in non-linear PDEs" at Ulm University	09/2022
Referee for Journal of Evolution Equations	10/2022
Co-organisation of the seminar "Mathematisches Kolloquium" at Ulm University	since 03/2020
• A series of talks at which researchers are invited to give a talk accessible to a broad audience.	
Organisation of a workshop for PhD students in mathematics at Ulm University	06/2022
• One weekend, 15 participants, funding (2500 €) acquired by the StuVe Ulm University.	
Supervision of a project for the workshop of the 25th Internetseminar	03/2022 - 06/2022
• Title: Kolmogorov equation in $L^p(\mathbb{R}^{2n})$ – Semigroup, spectrum, maximal regularity?	
Research stay at Prof. Dr. Cyril Imbert, École normale supérieure Paris, one week	11/2021
Facilitator at the autumn school "COLLAB – Collaboratory for Global Sustainability 2021", Toronto/Ulm	10/2021
Supporting the organisation of the winter school "Grad. Flows and Var. Methods in PDEs" at Ulm Universi	ity 11/2019
Talks and Posters	
Poster — "Kinetic Theory", CIRM Marseille	11/2022
Talk & Poster — "Horizons in non-linear PDEs", <i>Ulm University</i>	09/2022
Poster — When Kinetic Theory meets Fluid Mechanics, ETH Zürich	07/2022
Poster — 11th Summer school on "Methods and Models of Kinetic Theory", <i>Pesaro</i>	06/2022
Poster — Frontiers in analysis of kinetic equations, INI Cambridge	01/2022
Talk — Nonlinear Evolution Equations and Approximations, <i>University of Duisburg-Essen</i>	07/2021
Talk — Oberseminar Analysis, <i>Ulm University</i>	03/2021
Poster — Winterschool on Analysis and Applied Mathematics, <i>University of Münster</i>	02/2021
ATTENDED CONFERENCES	11/2022
Kinetic Theory, CIRM Marseille	11/2022
Horizons in non-linear PDEs, <i>Ulm University</i>	09/2022
2nd IST Austria Summer School in Analysis and PDEs, <i>IST Austria</i> When Kinetic Theory meets Fluid Mechanics, <i>ETH Zürich</i>	07/2022
25th Internetseminar "Spectral Theory for Operators and Semigroups", <i>Agropoli</i>	07/2022 06/2022
11th Summer school on "Methods and Models of Kinetic Theory", <i>Pesaro</i>	06/2022
Oxbridge PDE Conference, University of Oxford	05/2022
Frontiers in the Interplay Between Probability and Kinetic Theory, ICMS Edinburgh	04/2022
Kinetic Theory: old and new tutorial, INI Cambridge	01/2022
Frontiers in analysis of kinetic equations, <i>INI Cambridge</i>	01/2022
Deep Learning and partial differential equations, INI Cambridge	07/2021
Recent advances in Gradient Flows, Kinetic Theory, and Reaction-Diffusion Equations, <i>University of Vienne</i>	•
Kinetic Equations: from Modeling Computation to Analysis, CIRM Marseille	03/2021
Winterschool on Analysis and Applied Mathematics, <i>University of Münster</i>	02/2021
Gradient flows and variational methods in PDEs, <i>Ulm University</i>	11/2019
PDE/Probability Interactions: Particle Systems, Hyperbolic Conservation Laws, CIRM Marseille	10/2019
Parabolic Evolution Equations, Harmonic Analysis And Spectral Theory, Bad Herrenalb	05/2019
Non Standard Diffusions in Fluids, Kinetic Equations and Probability, CIRM Marseille	12/2018
Evolutionsgleichungen in Ulm, <i>Ulm University</i>	04/2018
SKILLS	
Communication German (native speaker), English (C1), French (B1)	
IT C++, Excel (VBA), Java, ŁTEX, Mathematica, Matlab, R, Swift	
IT C++, Excel (VBA), Java, ETEX, Mathematica, Matlab, R, Swift Sophisticated understanding of software and hardware Advanced videography and photography skills	