

LIST OF PUBLICATIONS

A trajectorial interpretation of Moser's proof of the Harnack inequality <i>with Rico Zacher, to appear in Annali della Scuola Normale Superiore di Pisa - Classe di Scienze, link to the preprint.</i>	05/2023
On a kinetic Poincaré inequality and beyond <i>with Rico Zacher, ArXiv, link to the preprint.</i>	12/2022
Kinetic maximal L^p-regularity with temporal weights and application to quasilinear kinetic diffusion equations <i>with Rico Zacher, Journal of Differential Equations, 307, p. 29–82, link to the article.</i>	01/2022
Kinetic maximal $L^p_\mu(L^p)$-regularity for the fractional Kolmogorov equation with variable density <i>Nonlinear Analysis, 214, link to the article.</i>	01/2022
Kinetic maximal L^2-regularity for the (fractional) Kolmogorov equation <i>with Rico Zacher, Journal of Evolution Equations, 21, p. 3585–3612, link to the article.</i>	04/2021

EDUCATION

PhD Mathematics <i>Ulm University</i> <ul style="list-style-type: none">• Thesis: Analytic aspects of kinetic partial differential equations.• Advisor: Prof. Dr Rico Zacher.• Referees: Prof. Dr Cyril Imbert, Prof. Dr Hongjie Dong.• Grade: Summa cum laude.	04/2019 — 06/2023
M.Sc. Mathematics <i>Ulm University</i> <ul style="list-style-type: none">• Thesis: Kolmogorov equations - Well-posedness, regularity, asymptotics and Harnack inequalities.• Grade: 1.0 with distinction, awarded for the best graduation.	03/2018 — 03/2019
B.Sc. Mathematics <i>Ulm University</i> <ul style="list-style-type: none">• 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.	10/2014 — 02/2018
Abitur , <i>Joachim-Hahn-Gymnasium Blaubeuren</i> Junior studies in mathematics , <i>Fernuniversität Hagen and Pfh Göttingen</i>	06/2014 04/2013 — 09/2014

WORKING EXPERIENCE

Postdoctoral fellow <i>University of Münster</i> <ul style="list-style-type: none">• Member of the group of Prof. Dr Christian Seis, where we will be studying vortex rings in ideal fluids.	Since 04/2023
Predoctoral fellow <i>Ulm University</i>	10/2022 — 03/2023
Teaching assistant <i>University of Applied Sciences Neu-Ulm</i>	03/2020 — 10/2022
Pre-doctoral fellow <i>Ulm University</i>	04/2019 — 10/2019
Scientific assistant <i>Ulm University</i>	10/2017 — 03/2019
Working student <i>Daimler AG Research & Development</i> <ul style="list-style-type: none">• Statistical analysis with Matlab and Excel.• Supervising the operation of a quasi-static tension-compression testing machine.	03/2015 — 03/2019
Student assistant <i>Ulm University</i>	10/2015 — 09/2017

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

Elected member of the council of PhD students at Ulm University	02/2021 — 09/2022
• <i>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).</i>	
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	07/2017 — 03/2019
• <i>Member of the appointment committee for a professorship in “Stochastics”.</i>	

OTHER SCIENTIFIC ACTIVITIES

Research stay at Dr Tobias Ried, MPI Leipzig, one week	09/2023
Research stay at Prof. Dr Rico Zacher, Ulm University, one week	07/2023
Referee for Discrete and Continuous Dynamical Systems	05/2023
Research stay at Nicola De Nitti, FAU Erlangen, one week	03/2023
Research stay at Prof. Dr Christian Seis, WWU Münster, half a week	02/2023
Research stay at Prof. Dr Cyril Imbert, École normale supérieure Paris, half a week	02/2023
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
• <i>A series of talks at which researchers are invited to give a talk accessible to a broad audience.</i>	
Organisation of a workshop for PhD students in mathematics at Ulm University	06/2022
• <i>One weekend, 15 participants, funding (2500 €) acquired by the StuVe Ulm University.</i>	
Supervision of a project for the workshop of the 25th Internetseminar	03/2022 — 06/2022
• <i>Title: Kolmogorov equation in $L^p(\mathbb{R}^{2n})$ – Semigroup, spectrum, maximal regularity?</i>	
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 University	11/2019

TALKS AND POSTERS

Talk — Seminar of the AG Analysis-Probability, MPI Leipzig	09/2023
Talk — “Real Analysis and Geometry”, CIRM Marseille	06/2023
Talk — Wilhelm Killing Colloquium, WWU Münster	04/2023
Talk — Chair Dynamics Control and Numerics, FAU Erlangen	03/2023
Talk — TULKKA, KIT Karlsruhe	02/2023
Poster — “Kinetic Theory”, CIRM Marseille	11/2022
Talk & Poster — “Horizons in non-linear PDEs”, Ulm University	09/2022
Poster — When Kinetic Theory meets Fluid Mechanics, ETH Zürich	07/2022
Poster — 11th Summer school on “Methods and Models of Kinetic Theory”, Pesaro	06/2022
Poster — Frontiers in analysis of kinetic equations, INI Cambridge	01/2022
Talk — Nonlinear Evolution Equations and Approximations, University of Duisburg-Essen	07/2021
Talk — Oberseminar Analysis, Ulm University	03/2021
Poster — Winterschool on Analysis and Applied Mathematics, University of Münster	02/2021

ATTENDED CONFERENCES

Workshop on Stability, Mixing and Fluid Dynamics, <i>University of Münster</i>	08/2023
Stability and dynamics in fluid mechanics and kinetic theory, <i>ICL London</i>	07/2023
New Directions in Compressible and Incompressible Flows, <i>MPI Leipzig</i>	06/2023
Real Analysis and Geometry, <i>CIRM Marseille</i>	06/2023
Kinetic Theory, <i>CIRM Marseille</i>	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>	07/2022
When Kinetic Theory meets Fluid Mechanics, <i>ETH Zürich</i>	07/2022
25th Internetseminar “Spectral Theory for Operators and Semigroups”, <i>Agropoli</i>	06/2022
11th Summer school on “Methods and Models of Kinetic Theory”, <i>Pesaro</i>	06/2022
Oxbridge PDE Conference, <i>University of Oxford</i>	05/2022
Frontiers in the Interplay Between Probability and Kinetic Theory, <i>ICMS Edinburgh</i>	04/2022
Kinetic Theory: old and new tutorial, <i>INI Cambridge</i>	01/2022
Frontiers in analysis of kinetic equations, <i>INI Cambridge</i>	01/2022
Deep Learning and partial differential equations, <i>INI Cambridge</i>	07/2021
Recent advances in Gradient Flows, Kinetic Theory, and Reaction-Diffusion Equations, <i>University of Vienna</i>	03/2021
Kinetic Equations: from Modeling Computation to Analysis, <i>CIRM Marseille</i>	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, <i>CIRM Marseille</i>	10/2019
Parabolic Evolution Equations, Harmonic Analysis And Spectral Theory, <i>Bad Herrenalb</i>	05/2019
Non Standard Diffusions in Fluids, Kinetic Equations and Probability, <i>CIRM Marseille</i>	12/2018
Evolutionsgleichungen in Ulm, <i>Ulm University</i>	04/2018

TEACHING EXPERIENCE

Teaching assistant , <i>University of Münster</i> Analysis and Numerics of Differential Equations	Winter 2023
Teaching assistant , <i>Ulm University</i> Analysis 1, Local coordinator of the 26th ISEM	Winter 2022
Teaching assistant , <i>University of Applied Sciences Neu-Ulm</i> Business Mathematics and Statistics 1	Summer 2022
Teaching assistant , <i>University of Applied Sciences Neu-Ulm</i> Business Mathematics and Statistics 2 - Regression Models/Statistical Testing	Winter 2021
Teaching assistant , <i>University of Applied Sciences Neu-Ulm</i> Business Mathematics and Statistics 1	Summer 2021
Teaching assistant , <i>Ulm University</i> Dynamical systems	Winter 2020
Teaching assistant , <i>University of Applied Sciences Neu-Ulm</i> Business Mathematics and Statistics 2 - Regression Models/Statistical Testing	Winter 2020
Teaching assistant , <i>University of Applied Sciences Neu-Ulm</i> Business Mathematics and Statistics 1	Summer 2020
Teaching assistant , <i>Ulm University</i> Organisation of the Trainingscamp, a yearly event for first-year students to refresh their mathematical skills.	Winter 2019
Teaching assistant , <i>Ulm University</i> Analysis 1	Summer 2019
Teaching assistant , <i>Ulm University</i> Dynamical systems	Winter 2018
Teaching assistant , <i>Ulm University</i> Elements of functional analysis	Summer 2018
Teaching assistant , <i>Ulm University</i> Analysis 2	Winter 2017
Tutor , <i>Ulm University</i> Mathlabs for Analysis 1 & Analysis 2	Winter 2015 — Summer 2017