Viktor Stein

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https://viktorajstein.github.io/

Positions

In the Applied Mathematics group at Technical University Berlin.

08.2023 – 01.2029 **PhD candidate** (with teaching responsibilities from 2024 on, Funded by the German Federal Ministry of Education and Research under the project "VI-Screen" until then.)

04.2023 – 07.2023 **PhD Stipend** (Researching Wasserstein gradient flows with respect to the Rényi divergence and entropy.)

06.2021 – 03.2023 **Student research assistant** (Research on Wasserstein gradient flows, writing a script for the lecture "Approximation theory" and rewriting the script for the lecture "Convex Analysis" in the setting of infinite-dimensional spaces, proofreading manuscripts.)

At the Department of Mathematics, Technical University Berlin.

10.2019 -– 03.2021 **Tutor** (Giving tutorials and correcting homework for the lectures "Functional Analysis I", "Differential Equations I" and "Linear Algebra for Engineers".)

Preprints

07.02.2024 **Wasserstein Gradient Flows for Moreau Envelopes of f-Divergences in Reproducing Kernel Hilbert Spaces** (Joint work with Sebastian Neumayer, TU Chemnitz and Gabriele Steidl and Nicolaj Rux, TU Berlin.)

Teaching

04.2024 - 07.2024 **Convex Analysis** (Lecture assistant)

Elective module in the Mathematics program.

01.2024 - 02.2024 **Numerical Mathematics I (in German)** (Lecture assistant)

a third-semester's module in the Mathematics Bachelors program.

Education

04.2021 – 05.2023 **Mathematics Master** (Technische Universität Berlin. Final grade: 1.1)

Focus on further Functional Analysis topics as well as Topology, Differential Geometry, Complex Analysis and Statistics. Master's thesis: Wasserstein gradient flows - with an eye towards positive matrix-valued measures. Supervised by Prof. Gabriele Steidl and Dr. Robert Beinert.

10.2017 – 04.2021 **Mathematics Bachelor** (Technische Universität Berlin. Final grade: 2.0)

Focus on Functional Analysis and Differential Equations with a minor in Machine Learning. Bachelor's thesis: Atomic Norm Minimisation for Superresolution. Supervised by Prof. Gabriele Steidl and Dr. Robert Beinert.

Awards

At the 17. annual Dies Mathematicus in 2022 at the TU Berlin I received a prize for the best Bachelor's thesis talk.

Volunteer work

Since the beginning of this school year in September 2022 I have been tutoring around fourteen seventh-graders in weekly sessions discussing mathematical puzzles and questions from the Mathematical Olympiad.

I have also served as corrector at the team competition at the Tag der Mathematik 2022 (organised by the three Berlin universities), where 69 teams of high schoolers participated.