



Technische Universität Berlin offers an open position:

## Research Assistant - 0.75 working time - salary grade E13 TV-L Berliner Hochschulen

under the reserve that funds are granted

### Faculty II - Institute of Mathematics / Stochastics and Financial Mathematics

**Reference number:** II-566/24 (starting at the earliest possible / limited until 30.06.2028 / closing date for applications 01/11/24)

#### Working field:

SFB/Transregio 388 investigates the interplay between rough analysis and stochastic dynamics. Central aspects include rough paths and subsequent developments for nonlinear stochastic partial differential equations. The theory of signatures and rough volatility also provides important connections to algebra, statistics, and financial mathematics.

Website: <https://sites.google.com/view/trr388/>

Project A05 of the SFB/TRR388 concerns path signatures, which are central to the theory of rough paths. These are formal power series or tensor series shaped by algebraic and geometric structures. The project focuses on algebraic and geometric aspects of signatures, particularly the structure of paths and the groups they generate. Also relevant to the project are Cartan developments, the classification of processes with finite signature cumulants, and the infinite-dimensional geometry of groups of reduced tree paths.

There is the possibility of a doctorate.

#### Requirements:

- Successfully completed university degree (Master, Diplom or equivalent) in Mathematics or nearby field
- Knowledge of stochastic analysis, as e.g. evidenced by relevant Master's thesis
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

#### Desirable:

- Research experience in the field of rough analysis, signatures and/or stochastic dynamics.

More information can be obtained from Prof. Dr. Peter Friz ([friz@math.tu-berlin.de](mailto:friz@math.tu-berlin.de)).

Please send your application with **the reference number** and the usual documents by email (single pdf file, max. 5 MB) to Prof. Dr. Peter Friz via ([downes@math.tu-berlin.de](mailto:downes@math.tu-berlin.de)).

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: [https://www.abt2-t.tu-berlin.de/menue/themen\\_a\\_z/datenschutzerklaerung/](https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/).

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät II, Institut für Mathematik, Prof. Dr. Peter Friz, Sekr. MA 7-1, Straße des 17. Juni 136, 10623 Berlin

The vacancy is also available on the internet at <https://www.personalabteilung.tu-berlin.de/menue/jobs/>

