



Universität Greifswald, Institut f. Mathematik u. Informatik, 17487 Greifswald

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Friday 5th February, 2021

Research assistant position in Greifswald

I am looking to fill the position of a **Research Assistant** (3 years, 75%, pay group 13 TV-L Wissenschaft) at the University of Greifswald in the trilateral project (France-Germany-Japan)

Enhanced data stream analysis: combining the signature method and machine learning algorithms.

This is a **pure research position**; however, if desired, it is possible to take on teaching responsibilities. The position is **suitable for the preparation of a doctorate**.

Job requirements

- Advanced university degree in mathematics, statistics, physics or computer science (Master or equivalent).
- First experiences with machine learning, in particular deep learning.
- Interest in working with real-life data.
- Fluency in English.
- Knowledge of algebra (e. g. non-commutative, commutative, representation theory, algebraic topology, ..) or theoretical computer science (e.g. automata theory, graph theory, ..) are beneficial.

Background on the project

Our international (France-Germany-Japan) and inter-disciplinary team of researchers from machine learning, algebra, stochastic analysis, data assimilation and oceanography, aims to

- develop interpretable features of multi-dimensional time-series in a rigorous algebraic framework, based on the iterated-integrals signature, for the analysis of dependence, synchronization and structure

- understand how to extract these features in a robust fashion
- develop statistical guarantees for these features in the setting of standard time-series models and benchmark on synthetic data
- use these new - as well as existing - statistical methods to perform original investigation on oceanic and climate data

For the complete announcement, please visit <https://diehlj.github.io>.

For any questions, please contact joscha.diehl@uni-greifswald.de.

The deadline for applications is **February 28th, 2021**.