Postdoc position in mathematics related to machine learning in Tübingen

The Department of Mathematics at the University of Tübingen invites applications for a

Postdoc position (m/f/d, 100% E 13 TV-L salary, for 2 years).

The University of Tübingen is one of eleven German Excellence Universities. Particularly its cluster of excellence „Machine Learning: New Perspectives for Science", together with connections to the Max Planck Institute for Intelligent Systems, makes Tübingen a very attractive location for mathematical and machine learning research. The successful candidate will be mentored by Stephan Eckstein from the Department of Mathematics and benefit from this vibrant research environment.

The candidate should have an academic profile suitable for conducting mathematical research with connections to machine learning and ideally also probability theory or stochastic optimization. Concretely, below are some of the planned research topics which the position will relate to:

- Computational probabilistic methods, e.g., related to optimal transport
- Causal inference, graphical causal models, and their probabilistic aspects
- Quantization of probability distributions, information geometry, rate-distortion theory
- Regularization, approximation, and sample complexity of stochastic optimization problems
- Interpretability of neural networks, e.g., using canonical correlation analysis or autoencoders
- Mathematical aspects of graph neural networks

Aside from research, participating in departmental teaching activities is part of the position.

Applicants must have obtained or be near obtaining a doctoral degree in mathematics or a closely related field. The initial contract for the position will be for two years, with an extension of one additional year possible upon mutual agreement. Knowledge of German is not a requirement.

The University of Tübingen is committed to equal opportunity, diversity, and inclusion. Female candidates, in particular, are explicitly invited to apply. Applications from equally qualified candidates with disabilities will be given preference. The employment is carried out by the central administration of the University of Tübingen.

To apply, submit a cover letter, an academic CV (including research interests, a list of publications/preprints, and teaching experience) and transcripts for the most recent degree, all in a single PDF file, to stephan.eckstein@uni-tuebingen.de. Please provide names and contact details (including email addresses) of at least two persons who can provide feedback on your suitability for the position.

The deadline for applications is **31.03.2024**, and the starting date is flexible. If you have any questions, feel free to contact stephan.eckstein@uni-tuebingen.de.