



The research group **AutoML for Science** is looking for a highly motivated candidate for

PhD Position | AutoML for Science

About the project. The application of ML relies on crucial design decisions that demand considerable expertise and resources. Our research group focuses on methods to lift this barrier and make ML easy to use, for example, via hyperparameter optimization (HPO) methods, aiming to study the following:



- How can we derive AutoML tasks from ML in Science applications (e.g., neuroscience)?
- What are relevant design spaces, metrics and requirements?
- Do existing HPO methods work in these settings (wrt efficiency and returned solutions)?
- How can we use AutoML to create exciting insights for domain experts (e.g. explainability, hyperparameter importance)?

As a successful applicant, you will research these topics in the context of the **Cluster of Excellence “Machine learning - New Perspectives for Science”** as part of the early career research group **“AutoML for Science”**. You will have ample opportunity to collaborate with other research groups and publish and present your scientific results at international venues.

Required Qualifications

- An excellent MSc degree (or about to finish) in AI, ML, DL, computer science or a related discipline
- Solid knowledge of (and experience with) ML and DL methods
- Python knowledge with good working knowledge in applying/evaluating ML & DL methods

Knowledge in one or more of the following is beneficial: AutoML | Hyperparameter optimization | Bayesian Optimization | Large-scale evaluations | Deep Learning with tabular data | Benchmarking | Black-Box optimization | Explainability

To apply, please apply via IMPRS-IS (<https://imprs.is.mpg.de/>); Deadline Nov 15th.

→ For further questions, please reach out to katharina.eggensperger@uni-tuebingen.de

About Tübingen. The University of Tübingen is one of few excellence universities in Germany. With its cluster of excellence “Machine Learning for Science”, embedded in the interdisciplinary research environment of the CyberValley, the Max-Planck-Institute, the ELLIS Institute, and the Tübingen AI center, it provides a vibrant research environment, access to unique research facilities and great research opportunities.