

May 16, 2025

The Zuse Institute Berlin (ZIB) is a non-university research institute under public law of the state of Berlin. Within the research group Interactive Optimization and Learning we are offering at the earliest possible date a position for a

## Researcher (f/m/d)

on a full-time basis (39,4 hours per week), limited until March 31, 2029. If the applicant meets the relevant wage requirements and personal qualifications, the salary will be based on remuneration group 13 TV-L of the pay scale for the German public sector.

Our research group develops and implements state-of-the-art algorithms for mathematical optimization and artificial intelligence used in real-world applications. To this end, we collaborate with partners from academia and industry within the BMBF-funded research laboratory MODAL SynLab and beyond. Our flagship solver SCIP is one of the leading mixed-integer nonlinear programming solvers internationally.

### Your tasks

In this position you will continuously advance your own skill set and contribute to our scientific projects by

- **Researching and developing novel linear-programming methodologies** - including improvements to the Simplex method; adaptations of Simplex for quadratic programming; the design and analysis of interior-point methods; and the development of first-order LP algorithms.
- **Implementing state-of-the-art algorithms**—integrating and tuning solver components to drive down runtimes, improve numerical stability, and push benchmark performance to new heights.

### Your profile

- Master's degree in mathematics, computer science, or related disciplines
- Strong mathematical skills and an interest in mathematical optimization
- Experience with mixed-integer and/or nonlinear programming is beneficial
- Willingness to learn new concepts, tools and skills as required
- Good programming skills in modern programming languages
- C programming experience
- Creativity and a high degree of commitment to problem solving

**We offer** a friendly work environment with flexible work and meeting times, excellent equipment and a challenging professional environment

as well as

- an active onboarding process to provide new employees with the skills and knowledge that are important to their success in our institute and their careers,
- a varied, future-oriented and responsible field of activity,
- professional training opportunities and support in professional development,
- an additional pension scheme (VBL),
- 30 days annual leave, flexible working hours (flexitime),
- a salary based on TV-L (collective agreement for the public service of the federal states) in accordance with qualifications and professional experience with annual bonus payment,
- capital allowance of up to €150 per month, or alternatively a BVG job ticket plus the remaining balance,
- the use of canteens and sports programs of the Freie Universität Berlin (FUB) at reduced rates.

Applicants with disabilities will be given preference if equally qualified. Female applicants are highly encouraged to apply, since women are under-represented in natural sciences and ZIB seeks to increase the proportion of women in this field.

Please send your complete application including curriculum vitae in tabular form with a description of previous research/thesis, list of scientific publications and references by **May 22, 2025** (date of receipt), quoting the **Reference Number IWA 06/25** as **one PDF file** to: [jobs@zib.de](mailto:jobs@zib.de).

For further information about the position, please refer to our website [www.zib.de](http://www.zib.de) or contact Gioni Mexi ([mexi@zib.de](mailto:mexi@zib.de)).

Our private policy statement regarding application data is available at [www.zib.de/impressum](http://www.zib.de/impressum).

For further job offers please visit our website at [www.zib.de/jobadvertisement](http://www.zib.de/jobadvertisement).