

**Are you looking for a new professional challenge?  
Then this is the place to be!  
Become part of our international team!**



18 March 2021

The Zuse Institute Berlin (ZIB) is a non-university research institute under the public law of the state of Berlin. Within the division “Mathematical Algorithmic Intelligence” and the department “Applied Algorithmic Intelligence Methods” we are offering a

**Research Position (f/m/d)**  
**Reference Code: IWA 18/21**  
**Pay Grade: E 13 / E14 TV-L Berlin (100%).**

This vacancy needs to be filled at the earliest possible date and is a fixed-term contract until 31 December 2021.

Together with the MODAL research campus, the successful candidate will develop quantum computing-based solution methods for the most challenging network optimization problems in a pilot project with researchers from SynLab, EnergyLab, and HPCLab. These methods will later be tested with a QC simulator on the NRH system.

#### **Your tasks**

- High-performance implementation of algorithms for challenging network optimization problems on supercomputers
- Development of QC-based methods for these problems
- Implementation and comparison of these methods using an HPC QC simulator

#### **Your profile**

- Very good knowledge of C and C++
- Experience with parallel programming in HPC environment
- Excellent knowledge of highly optimized implementations of network optimization algorithms
- An excellent master's or graduate degree in mathematics, computer science, or related disciplines
- A strong background in discrete mathematics

Furthermore, we expect secure communication and teamwork skills, a high level of independence and commitment, as well as the competence and willingness to write scientific publications on an international level.

**We are offering** a friendly working atmosphere with flexible work and meeting times, excellent equipment, and a challenging professional environment

#### **as well as**

- comprehensive training in a competent and cooperative team,
- an additional pension scheme (VBL),

- 30 days annual leave, flexible working hours (flexitime),
- a salary in accordance with TV-L (Collective Agreement for the Public Service of the Federal States), taking into account the relevant professional experience,
- an end-of-year bonus,
- discounted BVG (public transport) ticket as part of the capital city allowance,
- and the use of canteens and sports programs of the Freie Universität Berlin (FUB) at reduced rates.

Female applicants are highly encouraged to apply. Since women are underrepresented in information technology, the ZIB is trying to increase the proportion of women in this research area.

Applicants with disabilities will be given preference if equally qualified.

Please send your application, quoting the reference code **IWA 18/21**, including cover letter, CV and further documents in pdf-format by **26 March 2021** (date of receipt) to: [jobs@zib.de](mailto:jobs@zib.de).

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

For further information about the position please refer to our website [www.zib.de](http://www.zib.de) or contact Prof. Dr. Thorsten Koch ([koch@zib.de](mailto:koch@zib.de)).

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