

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



**ZIB**

January 18, 2021

The Zuse Institute Berlin (ZIB) is a non-university research institute under public law of the State of Berlin. Within the division “Mathematics for Life and Materials Sciences”, the research group “Computational Anatomy and Physiology” is offering a

**Research position (m/f/d)**  
**Reference code: IWA 02/21**  
**Pay grade: E14 TV-L Berlin (100%)**

from April 1, 2021 as a fixed-term contract for 42 months.

Within a project funded by the EU JU-HPC and BMBF you will develop efficient discretization and solution methods for the simulation of cardiac electrophysiology with cellular resolution in cooperation with international research partners. Due to the enormous problem sizes, the focus is on the applicability on massively parallel high-performance computers. For development and simulation tasks, the high performance computer HLRN-IV operated by ZIB is used.

### **Your tasks**

- Development of efficient time discretization methods for heterogeneous partial differential equation models
- Development of scalable, heterogeneous multilevel and area decomposition preconditioners
- Implementation of the developed procedures and integration into a joint HPC code

### **Your profile**

- PhD in Mathematics, Computer Science or a similar discipline
- Extensive experience in modeling and simulation of cardiac electrophysiology
- Knowledge of finite element methods and time stepping schemes
- Experience in parallel programming and distributed computing, preferably in C++
- Good communication skills in English
- The ability to work independently and goal-oriented

We also expect creativity and commitment to the project.

**We offer** a friendly working atmosphere with flexible work and meeting times and excellent equipment in 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) company ticket
- and the use of canteens and sports programs of the Freie Universität Berlin 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 02/21**, including cover letter containing a statement of your research interests, CV with a list of publications, academic transcripts and contact details of two references by **January 25, 2021** (date of receipt) to

**Zuse Institute Berlin (ZIB)**

**- Administration -**

**Takustr. 7**

**14195 Berlin**

or by email in pdf format 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 Dr. Martin Weiser ([weiser@zib.de](mailto:weiser@zib.de)) or Dr. Thomas Steinke ([steinke@zib.de](mailto:steinke@zib.de)).

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