

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



June 20<sup>th</sup> 2024

The Zuse Institute Berlin (ZIB) is a non-university research institute under public law of the state of Berlin. Within the research group “Visual Data Analysis”, which is part of the division “Mathematics of Complex Systems”, starting on 1<sup>st</sup> of August 2024 with a duration of three years, we are offering

**a research position (m/f/d)  
reference code: IWA 25/24  
pay grade E13 TV-L Berlin (100%)**

### **Job description**

Within this project, you will develop and implement methods for the automated segmentation and visualization of three-dimensional (3D) image data of the mineralized shell plates of chitons acquired using computed tomography. Chitons possess thousands of innervated sensory organs, termed aesthetes, within their armored shell plates. In some chitons, each aesthete includes an eyespot and in other species, aesthetes have evolved into eyes. Within the shell plates, the aesthetes are found in three-dimensionally (3D) interconnected microchannels that extend to the shell surface. This international, interdisciplinary project with biologists and material scientists therefore focuses on deciphering how chitons’ dense sensory networks collect and process information and how they maintain their physical and network robustness when damaged. With the methods to be developed in our part of the project, we will help answer questions like how the aesthetes are wired together to function as robust and integrated sensory systems.

### **Your profile**

- Very good Master’s degree (or equivalent) in computer science, physics, mathematics or related disciplines
- Advanced knowledge and experience in image processing
- Very good programming skills in C++
- Good knowledge in data visualization
- Experience in programming in the software environment Amira
- Creativity and a high degree of commitment to problem solving
- Good command of written and spoken English

### **Additionally, you are**

- a team player who is interested in interdisciplinary collaborations and
- interested in biological problems.

**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, additionally free from work on December 24th and 31st,
- compatibility of work and family through flexible working hours, e.g. (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 allowance of up to €150 per month, alternatively a discounted BVG (public transport) ticket + difference amount,
- an end-of-year bonus
- and the use of canteens and sports programs of the Freie Universität Berlin (FUB) at reduced rates.

Due to our involvement in major regional cooperative projects, such as the Einstein Center for Mathematics (ECMath), the DFG Cluster of Excellence MATH+, the Berlin Mathematical School (BMS) or the Berlin Institute for the Foundations of Learning and Data (BIFOLD), we have close ties to universities and research institutes in the region.

Although this position advertised is full-time, a part-time agreement is also possible.

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 25/24**, including a cover letter containing a statement of your research interests, your CV and the standard supporting documents as **one PDF file** by June 26<sup>th</sup> 2024 (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 on the area of responsibility, please contact Dr. Daniel Baum ([baum@zib.de](mailto:baum@zib.de)).

For further job offers please visit our website at <https://www.zib.de/jobadvertisement>.