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

December 16, 2020

The Zuse Institute Berlin (ZIB) is a non-university research institute under public law of the state of Berlin. Within the research group „Geometric Data Analysis and Processing" as part of the „Visual and Data-Centric Computing" department, we are offering

a Research Position (m/f/d)
(Doctoral student) Reference Code: WA 73/20
Pay Grade: E13 TV-L Berlin (75%)

for the excellence cluster MATH+ project entitled "A Soft-Correspondence Approach to Shape Analysis" as a fixed-term contract from February 1, 2021 until January 31, 2024 (project end).

Background

Despite many advances, frameworks for geometric morphometry still rely on point-to-point correspondences between shapes, either explicitly in form of homologous landmarks or implicitly in terms of diffeomorphisms of the ambient space. Point-to-point correspondences, however, have fundamental limitations that prohibit the analysis of shape collections with incomplete or topologically varying objects. This is a major problem for the analysis of empirically given sets of shapes, since these often contain topological variations or are incomplete.

Job description

Goal of the project is to

- extend the scope of shape analysis methodology in order to overcome the limitations mentioned above
- generalize approaches defined in shape spaces that are based on explicit representations
- adapt and refine the concept of soft correspondences
- publish the results in peer-reviewed journals and to present them at international conferences.

You will work in an interdisciplinary environment in cooperation with scientists from the Technical University Berlin and the German Archeological Institute (DAI). A combination of the project work with a doctorate at the Free University of Berlin is intended.

Requirements

- Master's Degree in mathematics or a related field of study
- very good knowledge of differential geometry
- good programming skills (C++, Python, or similar)
- experience in the areas of computational statistics, geometry processing, numerical optimization and/or data science is of advantage
- good command of spoken and written English

Additionally, you are

- a team player
- interested in interdisciplinary collaborations

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) 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 **WA 73/20**, including a cover letter containing a statement of your research interests, a CV with a list of publications, academic transcripts, and contact details of two references, by **January 17, 2021** (date of receipt) to

Zuse Institute Berlin (ZIB)
- Administration -
Takustr. 7
14195 Berlin

or by email in pdf-format to: jobs@zib.de

Our private policy statement regarding application data is available at www.zib.de/impressum.

For further information about the position, please refer to our website www.zib.de or contact Dr. Christoph von Tycowicz (vontycowicz@zib.de) or Dr. Daniel Baum (baum@zib.de).

For further job offers please visit our website at www.zib.de/jobads.