Goethe University Frankfurt am Main invites applications for the position of a

Professorship (W3) for Computational Life Science
(supported by Johanna Quandt-Universitäts-Stiftung)

in the Institute of Computer Science at the Faculty of Computer Science and Mathematics. This civil servant or public employee position will start as soon as possible.

We are seeking for a multi-disciplinary and creative research candidate widely recognized for excellent research in one or several of the research areas of simulation, i.e., the integration of scientific computing, scientific simulation, and artificial intelligence with an internationally visible profile. The successful applicant should have contributed significantly both in the development of innovative computational methods and their application to scientific problems in the biomolecular sciences. The scientific focus of the applicants should be in the following areas:

- Developing innovative scientific simulation algorithms that integrate physics-based methods, HPC, and AI with future-oriented applications to quantum and exascale computing.
- Developing methods to extract quantitative knowledge from complex experimental data integrating Bayesian inference and probabilistic deep learning.
- The integration of cutting-edge modeling and simulation techniques with experimental data to develop mechanistic models of key molecular processes in biological cells, for example, the dynamic and organization of biomolecular complexes.

We expect the successful applicant to prove outstanding research achievement, e.g., publications in high-impact interdisciplinary scientific journals, and a highly visible international profile demonstrated by invitations to international conferences and workshops.

For the professorship, we seek a personality with a demonstrated willingness to collaborate with other theoretical and experimental colleagues and experience in collaborative research. The ability to connect to the research topics of the Institute of Computer Science, the research priorities of the faculty and the research profile of Goethe University and the willingness to cooperate with other research teams within the faculty and university are required.

The applicant's research area should be complementary and connectable to existing working groups. We expect the professorship to contribute significantly to the ongoing progress and the establishment of new interdisciplinary and cross-faculty collaborative projects. In particular, we expect engagement in inter and cross-disciplinary collaborations within the profile area "Structure and Dynamics of Life" of the Goethe University, significant synergies with the current Cluster of Excellence initiatives, and collaborations with the broader Frankfurt research landscape.

We expect the candidate to have finished a doctorate (with grades at least 'very good') and to possess an excellent track record of scientific publications. The professorship is embedded in the attractive research landscape in Frankfurt within and outside the university (see https://www.goethe-university-frankfurt.de/118903280/). Experience in the acquisition of third-party funded projects is required.

The future holder of the position will fully represent the field of scientific simulations for the molecular sciences and largely integrate in teaching in the Bachelor's and Master's programs. Ample experience in undergraduate research-oriented teaching and developing innovative master's programs is expected. Ideally, the applicant should have proven experience teaching interdisciplinary and international courses focusing on advanced simulation and statistical methods applied to biomolecular systems. The ability to teach in English is expected.

The successful applicant should have outstanding social and leadership skills and proven experience in academic self-governance.

The formal hiring requirements are defined in Sections 67, 68 of the Hessian Higher Education Act (Hessisches Hochschulgesetz).

Goethe-University is an equal opportunity employer, committed to diversity and inclusion. In particular, we are welcoming applications by qualified women and people with a migrant background. At Goethe-University, a special emphasis is placed on creating and sustaining a family-friendly work and research environment. Where applicants are otherwise equally qualified, preference is given to candidates with disabilities or equivalent. The same applies to women in fields in which they are under-represented.

To apply, please send a CV, a list of publications, an overview of your research and teaching activities as well as transcripts and a selection of recent course evaluations as a single PDF document **by 15th December, 2023** to application@fb12.uni-frankfurt.de. The candidate presentations are planned for 9th January, 2024. If you have any questions, please contact the Director of the Institute, Prof. Dr. Visvanathan Ramesh at vramesh@em.uni-frankfurt.de. Further information about the appointment process, the legal framework and data protection: http://www.professorship-vacancies.uni-frankfurt.de.