



## 15 PhD positions in the framework of the Frankfurt Center for Multiscale Modeling in Life Sciences (CMMS)

 [Frankfurt Institute for Advanced Studies \(FIAS\)](#)  Frankfurt

The **Frankfurt Institute for Advanced Studies (FIAS)** is an international research institute for interdisciplinary Theoretical Research and Artificial Intelligence in the Rhine-Main-Area. It is an institute with activities in Natural Sciences, Life Sciences & Neurosciences and Computer Sciences, dedicated to cross-disciplinary research and to the promotion of young scientists. FIAS is positioned in the heart of the Science-Campus Riedberg hosting apart from FIAS also the institutes of life science and science departments of the Goethe University Frankfurt, the Max-Planck Institutes for Biophysics und Brain Research and the Frankfurter Innovation center FIZ. In addition, Frankfurt with its global internet hub, the active software enterprises, and its strategic importance in fields of finance, medicine, mobility and pharmaceutic industry (and their large data sets) eager to cooperate with fundamental sciences creates a superb environment for researcher at FIAS.

### Activities and responsibilities

The CMMS collaborates within interdisciplinary theoretical-experimental teams, which develop new quantitative models of biological systems, coupling several temporal or spatial scales. The projects comprise modeling of protein complexes, organelle movement, dynamics of multicellular systems, pattern formation on organismal level, and the dynamic activity of biological networks. Developments in the area of high performance computing and machine learning approaches for the identification of patterns in complex data sets are approached as well. The experimental strategies engage methods like long time pattern tracking in neuroscience, high end light microscopy (light-sheet, super resolution) and high end cryo-electron microscopy and tomography.

Experimental and one theoretically oriented PhD will work together in these projects.

We offer positions with focus on computing, modeling and simulation, as well as on quantitative experimental research.

For more information on CMMS please check <https://fias.institute/en/projects/cmms/>

### Qualification profile

We are looking for candidates either with a strong background in theoretical sciences (physics, mathematics, computer science or theoretical biology or chemistry), or excellent students with a degree in experimental physics, biology or chemistry, with very good communication skills and strong interest in interdisciplinary research.

Please upload your electronic documents in **one pdf file** including a letter of motivation and your CV.



### We offer

PhD Position, starting April 1, 2020

3.5 years

salary is based on the public service pay scale E13 / 65% TV-H

graduate school membership GRADE iQbio

 Full-Time, Temporary  PhD Project  Updated on 10.01.2020