

**The Research Training Group “Quantum-Mechanical Materials Modelling” (QM<sup>3</sup>)** funded by the German Research Foundation (DFG) and hosted by University of Bremen in collaboration with Jacobs University, University of Oldenburg and Max-Planck-Institute for Structure and Dynamics of Matter, Hamburg, offer

**Twelve 3-year PhD positions (f/m/d)**

German federal pay scale E13 TV-L (75%)

- under the condition of job release. Earliest starting day is 01.01.2020 -

The time limitation is subject to the scientific qualification according to the Act of Academic Fixed-Term Contract, §2 (1) (WissZeitVG – Wissenschaftszeitvertrags-gesetz). Therefore, candidates may only be considered if they dispose of the respective scope of qualification periods according to §2 (1) WissZeitVG.

The RTG will provide a stimulating research and training environment uniquely bringing together materials modelling expertise from the fields of ab initio and correlated electron theory to quantum dynamics and large-scale approaches. We offer research projects on the development of advanced electronic structure methods linking many-body, non-equilibrium and multi-scale approaches towards synergetic applications in two-dimensional materials and metal oxide interfaces. For further information and details on possible projects see [www.rtg-qm3.de](http://www.rtg-qm3.de).

**Requirements:**

- A Master’s degree in physics or chemistry, preferably in the field of theoretical condensed matter research or quantum chemistry,
- A strong interest in electronic structure, quantum many-body and non-equilibrium methods.
- Very good programming skills in at least one high level programming language (ideally Python) and good knowledge of Linux (including shell scripting)

As a winner of the Total-E-Quality Science Award the University of Bremen strives for increasing the number of females in science, therefore women are explicitly encouraged to apply. Applicants with a migratory background are highly welcome. Disabled candidates will receive preferred consideration over mainly equally qualified contenders.

University of Bremen and the collaborating institutions are certified as “Family-Friendly”. We particularly welcome and encourage female applicants, disabled persons and ethnic minority groups, recognizing they are underrepresented across University of Bremen. The principles of fair and open competition apply and appointments will be made on merit.

**Contact:**

For questions please contact: Prof. Dr. Thomas Frauenheim by phone: +49 421 218 62340 or by e-mail [thomas.frauenheim@bccms.uni-bremen.de](mailto:thomas.frauenheim@bccms.uni-bremen.de)

Deadline for the application is **27 November 2019**.

Please indicate in your application which research theme(s) you are interested in and send your application with **reference number A312/19** including CV, an academic record, brief description of the Master thesis project, motivation letter, and two references to:

**BCCMS  
Universität Bremen  
Prof. Dr. Thomas Frauenheim  
Am Fallturm 1  
28359 Bremen**

or electronically and combined into a single PDF file to: [rtg-qm3@uni-bremen.de](mailto:rtg-qm3@uni-bremen.de)

Please do not send any originals folder.