

**TWO OPEN POSITIONS (UNIVERSITY OF BREMEN)
FOR PHDs/POSTDOCS IN COMPUTATIONAL MATERIALS SCIENCE**

Two positions are available at the University of Bremen (Prof. Nicola Marzari, Prof. Lucio Colombi Ciacchi), and in collaboration with the École Polytechnique Fédérale de Lausanne (Prof. Nicola Marzari). These positions are funded through the appointment of Prof. Marzari to an Excellence Chair¹ at the University of Bremen; these Chairs have the goal of building close collaborations with leading institutions worldwide and establish working groups in Bremen – as such, Excellence Chairs are closely integrated in the University's subject areas and supervise doctoral and postdoctoral researchers.

Outstanding candidates are sought with a background in the physical sciences or engineering, with passion and commitment to the field and with a commensurate academic record. Expertise in the development or application of first-principles techniques is required for the postdoctoral appointment, and advantageous for the doctoral appointment.

The two research areas that will be addressed are first-principles studies of

- 1) electrical/heat transport of functional materials in extreme environments
- 2) phase transformations in metal laser deposition/additive manufacturing

The positions will initially be limited to three years, and will be of

- postdoctoral researcher (f/m/d) at the full TV-L 13 payscale, starting in the Spring 2020
- doctoral researcher (f/m/d) at the 75% TV-L 13 payscale, starting in the Spring 2020

Required skills and experience include:

- a PhD (for the postdoctoral appointment) or a MSc (for the doctoral appointment) in the physical sciences or engineering
- intrinsic motivation and self-drive, and keen research interest
- excellent cooperation and communication skills and ability to work as part of a multi-site team
- excellent written and spoken English; knowledge of German is not required

We offer an excellent research environment and high-end computing and laboratory facilities, together with the synergy with several ongoing projects at the University of Bremen and at EPFL in computational materials science and materials design and discovery. These include the MAPEX Centre for Materials and Processes (<https://www.uni-bremen.de/en/mapex/>), the Research Training Group on Quantum Mechanical Materials Modeling (<https://www.rtg-qm3.de/>), the Swiss National Centre on Materials Design and Discovery MARVEL (<http://nccr-marvel.ch>), and the H2020 MaX Centre of Excellence for Materials Design at the eXascale (<http://max-centre.eu>).

¹ The 'U Bremen Excellence Chairs' programme underscores the strong international networking of existing research strengths and enhances their visibility. It promotes the University of Bremen's internationalisation efforts on a high level. They are primarily established in the University's High-Profile Areas and other areas of high potential.

The primary work location will be the Bremen Centre for Computational Materials Science, with substantial funding for short- and long-term visits at EPFL, and sustained contact through state-of-the-art videoconference facilities.

As the University of Bremen intends to increase the proportion of female employees in science, women are particularly encouraged to apply. In case of equal personal aptitudes and qualification priority will be given to handicapped applicants. The University of Bremen expressly invites persons with migration background to apply.

The employment is fixed-term and governed by the Act of Academic Fixed-Term Contract (Wissenschaftszeitvertragsgesetz – WissZeitVG). Therefore, candidates may only be considered for appointment if they still have the respective qualification periods available in accordance with § 2 (1) WissZeitVG.

Please send your electronic application as one single pdf document to both nicola.marzari@epfl.ch and colombi@hmi.uni-bremen.de, with the subject line "Bremen Excellence Chair" and 1) a letter of intent, 2) a full CV including publications and coursework records/grades, 3) contact for at least 2 references. Applications will be evaluated continuously and remain open until March 15th 2020.

