

Postdoctoral and PhD Positions supported by Sofja Kovalevskaja Award from
Alexander von Humboldt Foundation

Institute of Continuum Mechanics
Leibniz University Hannover, Germany

Position description: Four PhD scholarships and two postdoctoral positions are now open for a research project “Computational Characterization, Testing and Design of Carbon Fiber Based Polymer Matrix Composites”. The project is supported by the Sofja Kovalevskaja Prize of the Alexander von Humboldt Foundation. Applicants considering their interests, skills and backgrounds will be placed on different tasks of the project including: Models for PMC at Different Length Scales and Multiscale Methods; Sensitivity Analysis (SA) and Uncertainty Quantification; Probabilistic Optimization over Multiple Lengths scales and Validation and Computational design of PMC.

Prerequisites:

- Majors of academic degrees obtained in mechanics, computational engineering or materials sciences
- Proficiency in English communications both written and spoken English
- Good skills in programming, preferably in FORTRAN and/or C++, matlab or python
- Knowledge in LAMMPS; knowledge in ABAQUS is useful as well
- Applicants with one or several of the following research experiences are preferred: multiscale methods, molecular dynamics, multifield modelling, computational methods for fracture, sensitivity analysis, uncertainty analysis, optimization

Opportunities: Successful applicants will obtain official award letters from Alexander von Humboldt Foundation. A tax free scholarship of 1200-1500 Euros per month will be offered for the PhD student for three years. The Postdoc position will be based on the contract salary system in Germany (TVL) with gross income estimated around 63,000 Euros per year and variations according to the experience.

Research environment: The PhD students and postdocs will be placed at the Institute of Continuum Mechanics (IKM) at Leibniz-University Hannover (LUH), one of the leading institute in computational mechanics. The IKM, chaired by Prof. Wriggers, currently consists of approximately 30 Researchers (Postdoc and PhD students) and 4 technical staff. LUH boasts the Graduate School “Multiscale Methods for Interface Coupling” (MUSIC) that focuses on the experimental and virtual testing, modelling and scientific computing in engineering sciences.

Applications: Applicants interested in the positions may contact the Sofja Kovalevskaja group leader, Dr. Xiaoying Zhuang, through email: xiaoying.zhuang@gmail.com. The application should include a CV, transcripts and a cover letter. In the cover letter, applicant may include a short research statement explaining how they understand the issues related to the project.

Closing date: December 31, 2015