Faculty/Department: Mathematics, Informatics and Natural Sciences/Dept. of Math.
Seminar/Institute: Research Group Numerical Methods in Geosciences

Universität Hamburg invites applications for a Research Associate for the project "PalMod" in accordance with § 28 (3) of Hamburg’s Higher Education Act (HmbHG*). The position commences on October 1, 2015 (earliest).

It is remunerated at the salary level TV-L 13 and calls for 65 Percentage of the regular weekly work hours** of work per week.

The short-term nature of this contract is based upon § 2 of the Academic Short-Term Labor Contract Act (WissZeitVG). The term is fixed to 36 Months.

The University aims to increase the number of women in research and teaching and explicitly encourages women to apply. Equally qualified female applicants will receive preference in accordance with Hamburg’s Higher Education Act (HmbHG).

Tasks:
Duties include academic services in the project named above. Research associates can also pursue independent research and further academic qualifications.

Area(s) of Responsibility:
The applicant will develop numerical methods to represent small-scale processes in a mathematically and physically consistent way in earth system modeling components. He or she will analyze the mathematical and physical structure of such sub-grid scale phenomena and will use multi-scale methods to accurately represent them. The task involves implementation of the new methods into prototypical simplified model environments, testing and validation and publication of the results. An example implementation into an operational model on high performance computing architectures is aimed for.

Requirements:
A university degree in a relevant subject. In particular we prefer an excellent academic degree (Diploma or Master’s level) in Mathematics, Physics, Meteorology, Oceanography or related subjects, with a strong background in
- Numerical analysis for geophysical applications
- Galerkin or finite volume methods
- Climate Modeling with sub-grid parameterization and multi-scale phenomena
- High performance and parallel computing

Additionally the following skills will be evaluated:
- Profound interest in numerical methods and structure of geophysical equation sets
- Demonstrated experience in applying numerical methods to geoscientific applications
- Demonstrated knowledge and skills in climate modeling, conservative remapping techniques, and numerical analysis.

* Hamburg Higher Education Act
** Full-time positions currently comprise 39 hours per week.
• Proficiency in working with, and developing applications for geoscientific problems involving multiple scales.
• Ability to conduct independent research.
• Strong oral and written English communication skills.
• Demonstrated programming in a higher programming language (C/C++, Fortran, etc.)

Severely disabled applicants will receive preference over equally qualified non-disabled applicants.

For further information, please contact Prof. Dr. Jörn Behrens (joern.behrens@uni-hamburg.de) or consult our website at http://www.clisap.de/numerical-methods.

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s). The application deadline is Sept. 18, 2015. Please send applications to: Bewerbungen@math.uni-hamburg.de.