Faculty/Department:	Mathematics, Informatics, Natural Sciences, Department of Earth Sciences
Seminar/Institute:	CEN / Meteorological Institute

Universität Hamburg invites applications for a Research Associate for the project A3: "Canopies in the Earth System" within the framework of the DFG Cluster of Excellence '**CliCCS – Climate, Climatic Change and Society'** in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG). The position commences on 01. April 2019.

CliCCS is an ambitious research program at Universität Hamburg and strong partner institutions. Funded by the German Research Foundation (DFG), it is part of Germany's Excellence Strategy.

The program aims to understand climate changes, taking into account internal variability, extreme events, and unexpected side effects, addressing the natural and social spheres as well as their interactions. Thus CliCCS' overarching research question is: Which climate futures are possible and which are plausible? CliCCS will investigate how climate changes and how society changes with it, thereby feeding back on climate. It will identify those climate futures that are consistent with both climate and social dynamics (possible), and those we expect to unfold with appreciable probability (plausible).

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

The fixed-term nature of this contract is based upon Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for a period of 3 years.

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 the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

Our graduate school aims to help young academics thrive through all stages of their training, for more information please check the link: Graduate School

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

* Full-time positions currently comprise 39 hours per week.

<u>Specific Duties:</u>

The candidate shall develop a multi-scale canopy parameterization that aims at conserving mass, momentum and energy. A to be developed conceptual model shall include the relevant parameters (e.g. urban morphology, flow and stratification regimes) and consider variables available from models of the kilometer scale. Objective are the vertical canopy fluxes. Based on the conceptual model currently available urban parameterizations are to be assessed, new parameterization ideas to be developed and checked using available obstacle resolving model data (wind tunnel and numerical model results). If additional data are needed further numerical simulations may be performed with an available model. The new parameterization shall be implemented in a high-resolution numerical model that uses the same model physics as the obstacle resolving model and simulated canopy fluxes are to be compared with those received from the detailed simulations.

<u>Requirements:</u>

The candidate shall have experience in numerical modelling of the atmosphere or the ocean or in analyses of 4-dimensional data sets. Preferably, the candidate has knowledge of urban climate or of atmospheric processes within the canopy. A good knowledge of FORTRAN is preferred.

A university degree in a relevant field.

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

For further information, please contact heinke.schluenzen@uni-hamburg.de or consult our website at https://www.cliccs.uni-hamburg.de/.

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s), submitted as **one single PDF file**. The application deadline is 15.01.2019. Please send applications to: cliccs-jobs.cen@uni-hamburg.de. Keyword: A3PhDSchluenzen

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