

PhD position in aerosols and clouds at ETH Zurich

The Atmospheric Physics group at the Institute for Atmospheric and Climate Science (IAC) invites applications for a 3 to 3.5-year PhD position on numerical simulations of aerosol-cloud interactions for radiative forcing today and in future.

Project background: This PhD position is part of the newly funded EU project FORCeS (Constrained aerosol forcing for improved climate projections) led by the University of Stockholm. Its overall perspective is to understand and reduce the long-standing uncertainty in anthropogenic aerosol radiative forcing, which is crucial in order to increase confidence in climate projections. These projections are highly relevant for decision makers, as they provide key information on emission pathways that will facilitate the targets of the Paris Agreement to be achieved. FORCeS will identify key processes governing aerosol radiative forcing, as well as climate feedbacks related to aerosols and clouds, and improve the knowledge about these processes by bringing together leading European scientists with trans-disciplinary expertise to:

- Exploit the wealth of in-situ and remote sensing data that has emerged during the recent decades
- Perform dedicated laboratory and field experiments
- Utilize a range of state-of-the-art computational models
- Apply novel theoretical methods including machine learning techniques

Job description: The PhD work for this project will be conducted with the coupled global aerosol-climate model ICON-HAM aerosol model. We are thus looking for a PhD candidate interested in numerical modelling, aerosol and cloud physics and possibly machine learning.

Your profile: The position requires a MSc (or equivalent) in atmospheric/environmental sciences, physics, computational science, engineering or a related field. A background in numerical modelling, statistical data analysis and/or programming skills is highly encouraged. Sound knowledge of the English language, both oral and written is expected. We specifically encourage applications from members of underrepresented groups in academia.

Interested? We look forward to receiving your online application with the following documents:

- Curriculum vitae
- Copies of BSc and MSc educational records
- A statement of research interest
- Names and contact details of two references

Please note that we exclusively accept applications submitted through our online application portal: https://www.jobs.ethz.ch/job/view/JOPG_ethz_b0uKTDryfmgzNQN33O

Applications via email or postal services will not be considered. Review of applications will begin Oct 1, 2019 and will continue until the position is filled. Preferred start date is flexible and could begin as soon as January 2020.

Further information can be found on the website www.iac.ethz.ch/group/atmospheric-physics. For further information, please contact Prof. Ulrike Lohmann, email: ulrike.lohmann@env.ethz.ch (no applications).