

Finnish Meteorological Institute (FMI) announces

A PhD student position in Earth System modelling

open for applications on the topic

“ Advanced Earth system modelling: long-term evolution of ice sheets“

Objective: Using Earth system models, study the long term evolution of continental ice sheets with emphasis on the Nordic Arctic, covering both the last glaciation cycle, and the projections for future glaciations, including the potential consequences of the anthropogenic carbon release to the atmosphere. Determine the sensitivity of the simulation results on the model structure and parametrizations of sub-grid processes (such as the turbulent surface fluxes, snow/ice albedo, and radiative transfer in snow/ice), and improve these process descriptions in collaboration with and based on the research performed by SVALI staff in other SVALI institutes

Tasks: Work with the CLIMBER model in collaboration with two other PhD students, and staff in SVALI institutes, and concentrate on questions, such as

- Understanding the factors controlling the length of the summer melt season and the amount and phase of precipitation
- Understanding natural and anthropogenically induced variability of glaciers within the Earth system in the past and future
- Stability of ice sheets in future climate

In summary, the PhD student will try to estimate past and future changes in terrestrial ice cover, and assess the uncertainties associated with these estimates.

Context: The position is part of the Nordic Centre of Excellence “Stability and Variations of Arctic Land Ice” (SVALI; <http://ncoe-svali.org>). The planned collaboration within SVALI will cover the following aspects: mass balance modelling at DMI, CLIMBER modelling at FMI, application of extensive data bases and expertise on mass balance observations at UiO; utilization of the deep theoretical understanding of the ice sheet mass balances at UiO and UI.

Position: The position is until 31 December 2015, with a possibility of an extension by one year, at FMI (www.fmi.fi) in the Kumpula campus in Helsinki, Finland. Starting monthly salary for a recent MSc is approximately 2,500 Euro and includes health care.

Requirements: University degree (Master of Science, or equivalent) in a relevant subject; also those about to earn the degree by mid-2013 are encouraged to apply. Scientific attitude and drive. Ability to work independently, and also as a team member. Good computing skills, including programming. Good written and spoken English. Preference is given for applicants from Nordic countries.

Application: You are welcome to submit your application by 15 February. The position will remain open until filled. The applications should contain a short cover letter describing your interest in the position, a CV, and contact details of your supervisors. Review of applications will begin as soon as applications start to arrive and continue until the position is filled. Please send your application to registry@fmi.fi (cc: timo.vihma@fmi.fi). For more information, please feel free to contact Dr. Timo Vihma, timo.vihma@fmi.fi.