



ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG



The Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI) is a member of the Helmholtz Association (HGF) and funded by federal and state government. AWI focuses on polar and marine research in a variety of disciplines such as biology, oceanography, geology, geochemistry and geophysics thus allowing multidisciplinary approaches to scientific goals.

Scientific Programmer (m/f/d) for ESM-TOOLS

Background

ESM-TOOLS is a software product developed and maintained at AWI Bremerhaven as part of the Helmholtz project ESM with the aim to unify model infrastructure, giving a common framework for downloading, compiling, running and organizing coupled or standalone models. ESM-TOOLS is composed of three tools: (1) esm-master: Makefile-based tool to download, configure and compile the models (2) esm-environment: Machine-dependant settings for compiling and running of models, all collected in one place. (3) esm-runscripsts: collection of functions enabling to use short and concise runscripsts, practically identical independent of machine or even model. The underlying functions organize the whole experiment, including copying of data, modifying of namelists, sanity checks, iterative coupling, and much more.

Tasks

- The main aim of this position: to contribute to the development of the ESM-TOOLS and support users of the software.
- Development: ESM-TOOLS is a software specifically designed to run numerical models for the Earth System models on high performance computing machines. You will join the development team to collect user requirements, develop and test software features, and document workflow and issues.
- Support: You will contribute to the preparation of guidelines and training for users at AWI and ESM project partners. An additional task will be to provide support to users of the ESM-TOOLS at AWI assisting with diagnosis and resolution of technical issues related with the software.

Requirements

- Completed course studies (Mastert) in one of the following fields: physics, mathematics, computer sciences, engineering, meteorology, oceanography, climate sciences.
- Demonstrated skill/proficiency in Python, Shell, and Fortran or any other high-level programming language,
- Fluency in English

- Ability to work in a team
- Ability to organise own work and meet deadlines
- Ability to diagnose and solve technical problems in a timely way

Desirable skills and knowledge

- Experience with high performance computing
- Capacity to present technical concepts and tools in a clear and understandable way
- Experience with complex models of the coupled climate system, including coupling of different model components, and proven record in publishing are advantages.

Further Information

For further information please contact **Dr. Dirk Barbi** (Dirk.Barbi@awi.de; +49(471)4831-1561) and **Dr. Luisa Cristini** (Luisa.Cristini@awi.de; +49(471)4831-1681).

The position is limited to 2 years. The salary will be paid in accordance with the German Tarifvertrag des öffentlichen Dienstes (TVöD Bund), up to salary level **13**. The place of employment will be **Bremerhaven**.

This characterizes us

- our scientific success - excellent research.
- collaboration and cooperation - intra-institute, national and international, interdisciplinary.
- opportunities to develop – on the job, aiming at other positions and beyond AWI.
- a culture of reconciling work and family – audited, and even more than that.
- our outstanding research infrastructure – ships, stations, aircraft, laboratories and more.
- an international environment – everyday contacts with people from all over the world.
- having an influence – fundamental research with social and political relevance
- flat hierarchies – freedom and responsibility.
- exciting topics – also in technology, administration and infrastructure.

Equal opportunities for women and men are an integral part of our personnel policy. Therefore, we encourage women to apply.

Disabled applicants will be given preference when equal qualifications are present. The AWI fosters the compatibility of work and family through various means. Because of our engagement in the area of work-life compatibility we have been awarded the certificate "Career and Family".

We look forward to your application!

Please forward your application by **May 26th, 2019** exclusively online at www.awi.de/en/jobs
Reference number 33/D/Kli-b