

## Ocean Modeller (NEMO) – Cambridge

Job reference:

BAS 28/17

Contract type:

Full Time

Duration:

Fixed Term Appointment (18 Months)

Salary:

In the range of £28,200 and £30,600 per annum

Benefits:

We offer generous benefits

Team:

Polar Oceans team

Location:

Cambridge

Closing date:

30 April, 2017 11:59 pm

- Description
- Skills specification
- How to apply

Description

The British Antarctic Survey (BAS) is looking for an Ocean Modeller (NEMO) to join our Polar Oceans/Shelf Seas Team. In this position, the successful candidate will be developing, testing, running and evaluating a regional ocean model of the Weddell Sea, including the ice shelves. The successful candidate will be using standard model settings and updated bathymetry and will produce a hindcase of ice shelf melt rates through the era of the atmospheric reanalyses. The

candidate will also be evaluating the hindcast, adjusting model settings to optimise the regional configuration and evaluating the impact.

To be successful in this role, you must have practical experience in the development and running of numerical models of ocean circulation, experience in numerical solution of partial differential equations and have experience on both Unix and PC-based systems and knowledge of Fortran.

#### Purpose

To develop, test, run and evaluate a regional ocean model of the Weddell Sea, including the ice shelves.

#### Qualification

First degree in physical science/mathematics plus PhD (or equivalent)

#### Duties

- Update an existing model domain with new data on sub-ice-shelf geometry collected during recent field campaigns on Filchner Ice Shelf.
  - Using standard model settings and updated bathymetry, produce a hindcast of ice shelf melt rates through the era of the atmospheric reanalyses.
  - Evaluate the hindcast by comparison with observations of sub-ice circulation and ice shelf melt rates collected during recent field campaigns on Filchner-Ronne Ice Shelf and high-resolution model output over the same period.
  - Adjust model settings to optimise the regional configuration, and evaluate the impact of the new settings on a global configuration.
  - Run the optimised regional model coupled with a regional configuration of the ice sheet model BISICLES covering the catchment basins feeding the Filchner-Ronne Ice Shelf through the reanalysis era and compare with observations and the output of other regional coupled models.
  - Using the coupled ice-sheet-ocean configuration, produce a forecast of ice sheet mass balance using boundary forcing from climate model projections.
  - Support the use of the optimised code in global coupled ice sheet ocean simulations.
  - Attend project meetings to report on progress and share results.
  - Present model developments and scientific results in the peer-reviewed literature and at conferences.
-

On-line application forms and further information are available on our website at [www.bas.ac.uk/jobs](http://www.bas.ac.uk/jobs)

These are also available from the Human Resources Section, British Antarctic Survey, High Cross, Madingley Road, Cambridge, CB3 0ET. Tel: (01223) 221508.

Please quote reference: BAS 28/17

Closing date for receipt of application forms is: 30th April 2017

Interviews are scheduled to be held on: w/c 22nd May 2017

Start Date: January 2018

We welcome applications from all sections of the community. People from ethnic minorities are currently under-represented and their applications are particularly welcome.