

## **Research engineer in polar weather and climate modelling at CNRS / Centre National de Recherches Météorologiques (CNRS-CNRM)**

**Start date : October 2018**

Full time position for 15 months with possible extension

Net monthly salary : 1600-2000€ (depending on experience)

Location : Centre National de Recherches Météorologiques, Toulouse, France

The proposed work will contribute to the EU-funded project APPLICATE ("Advanced Prediction in Polar regions and beyond: modelling, observing system design and Linkages associated with a Changing Arctic climaTE").

The successful candidate will contribute to improve the representation of the sea ice surface and air-sea ice interactions in atmospheric models used for numerical weather prediction (NWP) and climate applications in Météo France.

More specifically, he/she will evaluate the sea ice model (GELATO) available in the SURFEX platform in the global NWP model ARPEGE and in a dedicated high-resolution Non-Hydrostatic Limited Area Model (AROME) over an Arctic sub-domain. The successful candidate will study more specifically the subgrid-scale variability due to the presence of sea ice at the marine surface and its impact on the turbulence near the surface. The single-column version of AROME and ARPEGE will also be used to understand in a simplified environment the air-marine surface interactions.

The successful candidate will work closely with researchers and engineers in both the NWP and Climate research groups at CNRS-CNRM. His/her results will benefit to both sides through developments done in the SURFEX platform. International collaborators include Met Norway, Stockholm University and ECMWF, all partners in the APPLICATE project.

### **Required qualifications**

- Completed MSc or equivalent in atmospheric physics, meteorology, climatology, applied mathematics or related fields;
- Experience using complex numerical models and good computational programming (Fortran), post-processing and data management skills;
- Demonstrated verbal and written communication skills (in French and/or English) necessary to work in a multidisciplinary team environment.

Applicants should send (i) a statement of research experience, qualification and interest, (ii) a complete CV including a list of publications, and (iii) two letters of recommendation via e-mail to Mr Eric Bazile ([eric.bazile@meteo.fr](mailto:eric.bazile@meteo.fr)) and Dr Matthieu Chevallier ([matthieu.chevallier@meteo.fr](mailto:matthieu.chevallier@meteo.fr)).

The call is open until **30 June 2018**.

## Hosting institution

CNRS-CNRM<sup>1</sup> (located in Toulouse, south-west of France) is a joint research unit between CNRS and Météo France. It is the research department of Météo France. About 225 permanent employees work at CNRS-CNRM, including 86 researchers. It is responsible for conducting research activities in weather forecasting, climate modelling, atmospheric chemistry, land-surface processes including snow related processes and oceanography.

APPLICATE is a 4-year project, funded by the European Commission under the Horizon 2020 program, and coordinated by the Alfred Wegener Institute, Bremerhaven (16 partners), that aims at advancing our ability to model and predict the Arctic weather and climate, and the impacts of Arctic climate change on weather and climate in lower latitudes. In APPLICATE, CNRS-CNRM co-leads WP2 « Enhanced weather and climate models », and contributes to WP5 « Enhanced predictive capacity ».

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1 <http://www.umar-cnrm.fr/>