

Research Engineer position at CNRM (Météo-France & CNRS), Toulouse (France)

Development of a climate atlas for the evaluation of sea-ice simulations

Position : Engineer / Early career scientist

Location : Météo-France's Research Center (CNRM), [Climate and Atmospheric Composition Department](#), Toulouse, France

Duration of contract : 7 months, possible 10 month-extension

Target start date: July 1st 2022 or the sooner after this date (before October 1st 2022)

Application deadline : May 19th, 2022

Contact : david.salas@meteo.fr, gmgecd@gmail.com

Context and Objectives

The current position is proposed within the framework of the European H2020 project [ISENES3](#), whose main objectives are to foster collaboration among the European modelling groups to speed-up the development and use of models of Earth System models (ESMs), deliver common strategies for the research infrastructure, and disseminate model data.

In this context, CNRM is in charge of testing the new community sea-ice model SI³ in its environment. The successful candidate will contribute to the evaluation of this new model against CNRM's current sea-ice model Gelato and observations. To do so, he/she will develop a climate atlas, based on existing similar tools previously developed at CNRM (for regional and global simulations and Earth system components other than sea-ice). The atlas will be based on CLIMAF (<https://climaf.readthedocs.io>), and, based on climate data processing, will produce a set of plots (maps, time series) and arrays of metrics, whose presentation will be organised in html pages. The Atlas should be ultimately flexible enough to be easily used by other users, to disable/enable various diagnostics, to use different observation or reference datasets and to be applied to the Arctic and/or Antarctic, or to the global domain.

Required qualification

The successful candidate may be either a research engineer or an early career researcher. He/she must have at least a master's degree in Earth sciences, computer science, applied mathematics or a similar discipline. The candidates should have the following qualifications :

- Strong numerical skills (Linux, Python)
- Good experience in climate data formats and analysis tools (NetCDF, CDO, NCO...)
- Good experience in graphical softwares (NCL, Python packages such as matplotlib)
- Good writing and synthesis skills
- Good teamwork and communication skills

Practical aspects

The work will be performed at Météo-France in Toulouse (France). The working language will be English and/or French.

The gross monthly salary will be between ~2552 and ~3280 euros depending on the experience and the level of recruitment (engineer or early carrier researcher) of the successful candidate, including social security.

The duration of the proposed contract will be 7 months, with a possible extension on another contract on similar activities.

Application procedure

Applicants should send to David Salas y Melia (david.salas@meteo.fr, gmgecd@gmail.com) :

- a curriculum vitae (including research or technical experience, publications and proceedings, computing skills and language level in particular in French, etc.),
- a brief statement of research or engineer interests and motivations for the job,
- the names and contact details (affiliation, position and email) of two referees who could support your application.

Please note that attachments larger than ~5 Mo are not supported by Meteo-France e-mail server and should be made available via a repository box (e.g. Dropbox, WeTransfer, ...)

Applications should be sent by email no later than **May 19th, 2022**.

Consideration of applications will begin immediately after May 19th, 2022.

Expected starting date is July 1st, 2022 or the sooner after.

Hosting institution

The [Centre National de Recherches Météorologiques](http://www.umr-cnrm.fr/) (CNRM) is the research department of Météo-France (<http://www.umr-cnrm.fr/>). It is responsible for conducting the largest part of the research activities in weather forecasting, climate modelling, atmospheric chemistry, oceanography and land-surface processes. Within CNRM, the GMGEC department is in charge of understanding scale interactions, interactions between the various components of the climate system including air composition, the response of the climate system to anthropogenic forcing, and sources of variability and long-term predictability. These activities are carried out in particular through the modelling of climate, atmospheric composition and air quality at global and regional scales, participation in model intercomparison exercises such as CMIP and their analysis, impact studies and the detection-attribution of observed climate change.