

Postdoctoral position offered for the « Use of MESCAN surface analysis system as added-value for regional climate reanalyses over Europe »

Context

This postdoctoral position is offered in the framework of the European program Copernicus Climate Change Service (C3S). The current project is dedicated to the preparation of a regional high-resolution climate reanalysis over Europe. CNRM is involved in the design of the operational system, has the responsibility of the preparation of input data for the system and is mandated to develop an Ensemble Data Assimilation (EDA) to assess the reanalysis uncertainty.

Work description

An operational system will be developed to produce regional reanalyses at high resolution over Europe, based on a 3D-VAR with the ALADIN HARMONIE modelling system for the upper air and MESCAN for screen variables and precipitation. The candidate will contribute to the MESCAN surface analysis done in the 3D-VAR, prepare the screen variables observations and control their quality.

Moreover, observations of precipitation will be collected and quality-controlled to be used in another MESCAN analysis. The analysed precipitation field will serve as input for off-line runs with the land-surface model SURFEX to produce surface and soil ECVs. The use of precipitation analysis in the assimilation cycle will be assessed. These developments will be done on Meteo-France HPC-computers and ported onto ECMWF HPC-computers. This work will be done in close collaboration with the Swedish Meteorological and Hydrological Institute (SMHI). He/she will contribute to analyse the results and will participate to the regular delivery of technical reports.

Qualifications

The candidate must hold a PhD in atmospheric sciences, preferably in surface modelling or analysis. All the tasks require good skills in FORTRAN and Unix, as well as in scientific writing. A previous experience in numerical modelling in the use of complex codes on HPC-computers is preferred.

Practical information

The position starts on **March 1st 2018** or the sooner after. The contract will be for **1 year renewable**. The net salary proposed is in the range 2600€ to 3100€ per month, depending on the candidate's experience. The work will be carried out in Météo-France in Toulouse (France), at the Centre National de Recherches Météorologiques (www.umr-cnrm.fr), mainly under the supervision of Antoine Verrelle. Applications will be received by e-mail only **before November 13** to antoine.verrelle@meteo.fr, eric.bazile@meteo.fr and patrick.lemoine@meteo.fr, and must contain a scientific CV, a letter of motivations, and at least two persons that may be contacted for recommendation. Any questions and requests should be sent to the same e-mail addresses.