



## **Post-doctoral fellowship at CNRM (UMR 3589 – METEO-FRANCE, CNRS)**

**Applications are invited for two post-doctoral research fellowships starting in 1st quarter of 2018, at Météo-France, in the Mesoscale Modelling Group of Centre National de Recherches Météorologiques (CNRM) in Toulouse, France (<http://www.umer-cnrm.fr/>) to work on the following subject:**

### **Implementation of a global land data assimilation system (LDAS-Monde)**

(renewable 12-month contracts)

CNRM develops the ISBA land surface model within SURFEX, an operational modeling platform able to simulate the terrestrial water and carbon fluxes. SURFEX is coupled to a number of atmospheric and hydrological models, and includes a land data assimilation system (LDAS) based on an Extended Kalman filter, able to analyze soil moisture and vegetation biomass at spatial resolutions ranging from 1 to 50 km.

LDAS-Monde is operational at a global scale and satellite-derived products (soil moisture, LAI) are integrated into the ISBA land surface model.

The post-doctorate fellows will contribute to the upgrade of LDAS-Monde. In particular, a 1D demonstrator of the Ensemble Kalman

filter will be tested 2D. The impact of using the EnKF on land variables and on the river discharge will be assessed. A reanalysis of land essential climate variables (ECVs) will be produced and assessed. Finally, the operation of LDAS-Monde in near-real-time will be tested. The potential impact of the analysis on applications in hydrology, agrometeorology, and on the quality control of satellite-derived land variables will be assessed.

The net monthly salary will vary from about 2600 € to 3200 € before income tax, depending on qualification.

Application should be done by email by sending a resume, a motivation letter, and the names, telephone and email address of two referees to:

[jean-christophe.calvet@meteo.fr](mailto:jean-christophe.calvet@meteo.fr)

The closing date for applications is  
**30 September 2017.**

The candidates should have knowledge on data assimilation and possibly land surface modelling and/or remote sensing of continental surfaces. They should be familiar with programming data analysis in Python, with the Linux environment, and with the FORTRAN programming language.

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