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

Applications are invited for one post-doctoral research fellowship starting in 2nd quarter of 2018, at Météo-France, in the Mesoscale Modelling Group of Centre National de Recherches Météorologiques (CNRM) in Toulouse, France (http://www.umr-cnrm.fr/) to work on the following subject:

> ## Modelling of agricultural practices within the ISBA Land Surface Model

(12-month contract)

CNRM develops the ISBA land surface model within SURFEX, an operational modelling platform able to simulate the terrestrial water and carbon fluxes. SURFEX is coupled to a number of atmospheric and hydrological models. CNRM is undergoing an update of its ecosystems and surface parameters database, (ECOCLIMAP-SG). New vegetation types will appear including a summer and winter crops differentiation, at a spatial resolution of 300 m. Along with this refined representation of crops, agricultural practices like irrigation and its impact on vegetation and water resources need to be represented better in ISBA.

The post-doctoral fellow will contribute to the implementation of irrigation in the ISBA land surface model. In particular, the use of different irrigation techniques (drip, flood and sprinkler irrigation) will be tested as well, with their link with water resources. The potential impact of the resulting irrigation on applications in hydrology, agrometeorology will be evaluated. Irrigation development within SURFEX will be used in the URCLIM project to assess various agricultural practices scenarios in rural areas surrounding cities as well as their impact on the effect of climate change on the urban heat island.

The gross monthly salary will vary from about 3290 € to 3890 € before income tax, depending on qualification.

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

clement.albergel@meteo.fr

The closing date for applications is
28 February 2018.

The candidates should have knowledge of land surface modelling. They should be familiar with programming data analysis in the FORTRAN programming language, with the Linux environment.

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