CALL FOR APPLICATION
18-MONTH POST-DOCTORAL POSITION

RESEARCH PROJECT CAMS_43
Copernicus Atmosphere Monitoring Service
European Union's Earth Observing Programme
https://atmosphere.copernicus.eu

Framework

CAMS is establishing the core global and regional atmospheric environmental service delivered as a component of Europe Copernicus program. The CAMS_43 subproject is dedicated to the development of global aerosol aspects, and the objective of this second phase of CAMS_43 is to continue to support the development of the global production system of CAMS operated at ECMWF, and to deliver 3D distributions of aerosols in the troposphere and stratosphere through data assimilation and numerical modelling. The postdoctoral position proposed at CNRM will contribute to the development and the improvement of the parameterization of aerosols at the global scale.

Work Description

The focus of the present postdoctoral position is to contribute to Work Package 1 untitled "Modelling aspects". The successful applicant will contribute to the development of the aerosol module in the Earth System Model of Météo-France CNRM-ESM. This aerosol module, whose developments are shared with the IFS weather forecast model of ECMWF, describes the main aerosol types (desert dust, sea-salt, sulphate, black carbon, organic matter, nitrates and ammonium, see http://www.umr-cnrm.fr/cmip6/spip.php?article12) in order to represent the climate-aerosol interactions. The main tasks of the successful applicant will concern first the inclusions in CNRM-ESM of brown carbon aerosols and of an improved description of aerosol optical properties. As time allows, the research will concern also the parameterization for the emission of dust aerosols. All tasks will require first a review of state-of-the-art practices in the aerosol climate modelling community, then to include code developments within the CNRM-ESM code, to perform CNRM-ESM numerical simulations, and to validate these simulations using available observations. The successful applicant will work in the Large Scale Meteorology and Climate Department of CNRM, involved in the development of various aspects of climate models.

Application Details

Profile	PhD in atmospheric sciences. A solid experience in numerical modelling is required, an experience in climate-aerosol studies would also be appreciated.
	A good practise of written and spoken English is required.
	All the tasks require gook skills in Fortran and Unix, as well as scientific writing.
Start date	1st January 2020.
Duration	18 months (12 + 6 months)
Salary	Gross monthly salary between 3200 and 3900 euros, net monthly salary between 2500 and 3000 euros, depending on experience. This net salary includes French social services and health insurance, but not taxes.
Host laboratory	Météo-France/CNRM, 42 avenue Gaspard Coriolis, Toulouse, France (http://www.umr-cnrm.fr)
Supervisors	Dr. Martine Michou (CNRM/GMGEC, martine.michou[at]meteo.fr, +33561079331) Dr. Pierre Nabat (CNRM/GMGEC, pierre.nabat[at]meteo.fr, +33561079740)

Application

For full consideration, an application letter including a detailed statement of research interest, along with a curriculum vitae (including research experience, publications and conferences, computing skill and different language practises) and the names, telephones and email addresses of 2 referees should be **sent by email before 29 September 2019** to: martine.michou[at]meteo.fr and pierre.nabat[at]meteo.fr