CALL FOR APPLICATION
14-MONTH POST-DOCTORAL POSITION

RESEARCH PROJECT H2020 CONSTRAIN

https://cordis.europa.eu/project/rcn/223242/factsheet/en

Framework

The CONSTRAIN project ("Constraining uncertainty of multi decadal climate projections") aims at improving our understanding of how natural and human factors affect multi-decadal climate change. This project will take advantage of novel observations and coordinated experiments to fill knowledge gaps in our understanding of forcing, feedbacks and natural variability in conditioning the pattern and precision of future projections.

Work Description

The focus of the present postdoctoral position is to contribute to Work Package 1 untitled "Effective radiative forcing and rapid adjustments", and more specifically to improve the understanding of aerosol-cloud interactions through the constrain of large effusive volcanic eruptions. Recent work (Malavelle et al. 2017) has shown that such eruptions (such as the 2014 eruption at Holuhraun, Iceland) could provide appropriate observational data to constrain the first aerosol indirect effect (Twomey effect) in climate models. The objective here is to contribute to a coordinated aerosol modelling activity (AeroCom), dedicated to the comparison of several global climate simulations against satellite retrievals and ground-based data sets of this Holuhraun eruption. The successful applicant will have to carry out the associated simulations with CNRM-ESM2-1 using common emission inventories, and to test the sensitivity of the model to the parameterization of the first aerosol indirect effect. 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-ESM2-1 code, to perform CNRM-ESM2-1 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. An 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	15th January 2020.
Duration	14 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. Marc Mallet (CNRM/GMGEC, marc.mallet[at]meteo.fr, +33561079373)
	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 3 November 2019** to: marc.mallet[at]meteo.fr, martine.michou[at]meteo.fr and pierre.nabat[at]meteo.fr