



CALL FOR APPLICATIONS

12-MONTH ENGINEER or POST DOCTORAL FELLOWSHIP AT METEO-FRANCE (TOULOUSE, FRANCE)

Applications are invited for a **12-month** position starting in **July 2020**, to work in collaboration with the Météo-France Climate Services Department, DCSC (Direction de la Climatologie et des Services Climatiques) on the following topic: "Flood Observatory for Resilient Occitanie "

The deadline for applications is **22 May 2020**

Scope

Following the disastrous floods that occurred in October 2018, Aude French region has become a pilot territory for the use of satellite images following hydro meteorological disaster, contributing to the development of territories more resilient to extreme events.

The work carried out in collaboration between the departmental directorate for territories and sea (DDTM Aude) and CNES is anchored in reality, through in-depth analysis of extreme hydro-meteorological events, aiming at developing an Occitanie Flood Recovery Observatory.

The proposed FLAude project builds on previous work to extend its territory (Occitanie region), duration and scope, addressing impacts and necessary adaptations on the territory, as well as medium and long term projections. The associated results and good practices will benefit to the Occitanie Flood Recovery Observatory on Aude administrative department, to other territories and regions networks in France (DDTM, DREAL, DEAL, EPCI), as well as to actors of the Ministry of Environment Satellite Applications Plan.

The European and Global replicability of the service will be demonstrated by using open datasets and tools offered by Copernicus DIAS and especially new C3S climate datasets.

The FLAUDE project aims to make this demonstrator operational in order to be able to respond to the needs of regional and local administration affected by extreme climatic events in metropolitan France, overseas French territories and abroad. The exemplary nature of the service will be guaranteed through the implementation of a C3S case study. CNES ensures the link i) with users, ii) with key partners such as Météo France for climate expertise in France and experience in C3S data use for global replicability of the service, and iii) with the scientific community, contributing to the understanding of extreme hydro-meteo phenomena and to the elaboration of methods for prevention and risk reduction.

Long term evolution of flood risk and projections in the future will be provided through new European or Global C3S products for past events analysis and climate projections evaluated with Météo-France climate references, helping decision makers to better assess decisions to be considered in the future.

Work description

The successful candidate will work within DCSC department on the following topics :

- Study of variables such as precipitation, humidity, soil absorption capacity, etc. derived from the Climate Data Store. Potential products include ERA5-Land, UERRA re-analysis and/or other C3S products such as EURO-CORDEX. Studied variables will be selected through bibliography analysis shared with C3S.
- Assessment of the use of CEMS EFAS hindcast data as available in the Climate Data Store, compared to past events analysis, and recommendations about how to choose the level of regional flood warnings =.
- Determination of suitability of the C3S and CEMS data and products with the Copernicus scientific team at ECMWF
- Local validation of C3S data and products by comparison with state-of-the-art high resolution Météo-France data records and models, as well as DDTM11 data records on Aude river (and SMAR data on other rivers if such data are available).
- Assessment of replicability to other territories.
- Long-term evolution of floods exposure and projections.

Required qualifications

1. A PhD or an engineer diploma in climate sciences, meteorology or related fields.
2. Demonstrated skill/proficiency in processing (Linux, Fortran, R) and visualization software (e.g. NCL, Python, ...).
3. Proven ability to effectively communicate scientific results in project meetings, international conferences and peer-reviewed publications.

Experience in statistics, climate forecasting and/or climate services will be distinct advantages. Fluency both in French and English (spoken, written) is necessary.

Practical information

The successful applicant will be contracted by Météo-France and will work in the DCSC departments, based in the "Météopole" site in Toulouse, France. The opened position will start as soon as possible after July, for 12 months, Net salary (before income tax) is commensurate to qualifications and experience, and ranges from 2600 to 3300 euros per month.

For full consideration, an application letter including a detailed statement of the candidates' research interest for the position, alongside a full curriculum vitae (research experience, publications, conferences, programming skills and languages) as well as contact details for two referees (names, e-mail and phone) should be sent by e-mail by 22 May 2020 to:

Jean-Michel Soubeyroux (jean-michel.soubeyroux@meteo.fr) and Béatrice Vincendon (beatrice.vincendon@meteo.fr)

For more details about this call, feel free to contact:

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