

VACANCY:
18-MONTH POST-DOC POSITION ON EVENT ATTRIBUTION
AT CNRM (TOULOUSE, FRANCE)

Applications are invited for a 18-month postdoctoral position starting on September 1st 2018 (+/- 3 months), in the climate research group of the CNRM in Toulouse (France), to work on the "Attribution of extreme weather events". The deadline for application is April 15th 2018.

Framework:

Attribution of single weather events is the process of assessing and quantifying the human influence on the occurrence or the intensity of specific extreme events.

The advertised position is funded by two different projects and institutions. European ERA4CS project Eupheme (European prototype demonstrator for the harmonisation and evaluation of methodologies for attribution of extreme weather events) involves many leading European research institutes on the area of event attribution. French project COSC (Climate Services Convention) is funded by the french ministry in charge of ecological transition. These two initiatives aim at improving the description and qualification of extreme weather events in a changing climate, with a particular focus on the human influence on such events.

The National Centre for Meteorological Research (CNRM) is a joint Météo-France and CNRS lab located in Toulouse, one of the most liveable and vibrant cities in France. It is one of the leading climate science research institutes in Europe. It provides a highly international and interdisciplinary environment for conducting scientific research as well as access to great scientific facilities.

Work description:

Previous work at CNRM has resulted in the introduction of a new statistical method for attributing single weather events. This technique uses non-stationary statistics to derive standard diagnoses (such as the fraction of attributable risk, the risk ratio, or indices describing how the human influence has affected the intensity of the event) from transient simulations (typically a concatenation of historical + RCP scenario).

The proposed work will consist in investigating the human influence on a few extreme events, using the new method developed at CNRM and possibly various other methods. Events under scrutiny will be agreed among project partners, and will typically include a heatwave, a heavy rainfall event, and a storm (with a focus on maximum wind speed). The analysis could use CMIP and Euro-Cordex ensembles of simulations, with a careful consideration of multi-model syntheses / statements.

As a part of this scientific task, the applicant will be asked to write scientific publication(s) and to contribute to the final report of the projects funding its position. Further development of the statistical method itself could be considered, although this is not the main expected outcome.

Desirable qualifications:

- 1) A Ph.D. in climate sciences or applied mathematics (statistics), or a M2 diploma.
- 2) Demonstrated programming skills in a Linux environment (in particular shell scripts, R, and NetCDF file format). Experience in the field of event attribution will be appreciated but is not mandatory.
- 3) Excellent written and oral communication skills in English. Practice of the French language would be convenient but is not mandatory.

Practical information:

The successful applicant will be contracted by CNRS (6 months) and Météo-France (12 months) and will be based at the “Centre National de Recherches Météorologiques” (Toulouse, France; <http://www.umr-cnrm.fr>) within the climate research group. The targeted starting date for this position is September 1st, with some flexibility (between June and December). The net salary will be between **2000 and 3000 euros per month** on average, depending on qualification and experience, and according to specific salary scales (e.g. near 2400 euros per month on average in the case of a recently graduated PhD). Note that for an experienced scientist (i.e. with higher salary), the total contracts duration might be shorter than 18 months.

For full consideration, an application letter including a detailed statement of research interests, along with a curriculum vitae (including research experience, publications, scientific conferences, computer skills and language practises) and the names, telephone and email address of 2 referees should be sent by email before April 15th 2018 to:

aurelien.ribes@meteo.fr, julien.cattiaux@meteo.fr and pascal.simon@meteo.fr

For more details about this call, please contact:

Aurélien Ribes

Email: aurelien.ribes@meteo.fr

Web: <https://www.umr-cnrm.fr/spip.php?article23&lang=en>