

Vacancy: post-doctoral grant on the attribution of European floods

Europe and other mid- and high-latitude regions in the world have experienced a number of unprecedented extreme climatic events in the past years, in particular heatwaves and droughts, as well as catastrophic floods like those that occurred in Belgium in the summer of 2021. *Attribution* is the research area at the crossover of climate science and statistics that aims at evaluating the relative contributions of different causal factors to the occurrence of extreme events. It serves in particular to pinpoint the possible role of anthropogenic climate change in these extremes.

We are seeking a talented post-doctoral researcher to join us in the effort to **better constrain the probabilities of occurrence of past and future extreme events and to arrive at robust attribution statements**. More specifically, the post-doctoral researcher will develop techniques to identify clusters of homogeneous precipitation data through multivariate extreme-value methods, and extend the framework proposed in [Kiriliouk and Naveau \(2020\)](#) to allow for more flexible tail dependence regimes and non-stationarity.

The post-doctoral researcher will be based at the institute of Statistics, Biostatistics and Actuarial Sciences (ISBA, part of [LiDAM](#), the Louvain Institute of Data Analysis and Modeling in economics and statistics) at UCLouvain. He/she will be supervised by Anna Kiriliouk (UCLouvain) and Francesco Ragone (Department of Mathematical and Computational Modelling, University of Leicester).

The post-doctoral grant is financed through the *Action de Recherche Concertée (ARC)* called **EXALT - EXtreme weather Attribution at mid- and high-Latitudes** using advanced statistical Techniques, see [here](#) for more information. This interdisciplinary project is a collaboration with the Earth and Climate Center (part of [ELI](#), the Earth and Life Institute) at UCLouvain. Other EXALT researchers are currently studying heatwaves and compound drought-heat events over Europe, and sea ice extent reduction in the Antarctic.

We offer:

- a 3-year post-doctoral grant (can be 1- or 2-year, if preferred), starting from October 1st, 2026.
- a net salary of around 3100 euros/month
- an international and multidisciplinary working environment
- travel opportunities for attending scientific conferences and doing research visits
- access to a high-performance scientific computing environment
- opportunities to gather experience in statistics teaching and consultancy

Expected profile: you are holding a PhD degree in statistics, mathematics, climatology, earth sciences, engineering, or a similar domain, during which you gained a solid background in (multivariate) extreme-value theory and climate-related applications. You have programming skills in R and/or Python and you are fluent in English. To be eligible, your PhD defence must be at most 5 years ago at the beginning of the post-doctoral fellowship and you cannot have resided or carried out your main activity (job, studies...) in Belgium for more than 24 months during the last 3 years.

How to apply: please send your CV, motivation letter, and PhD thesis (if already available), with the contact details of at least two references, to Anna Kiriliouk (anna.kiriliouk@uclouvain.be) and Francesco Ragone (fr120@leicester.ac.uk) with subject "EXALT Post-doctoral application" at your earliest convenience.