

Internship on high resolution extreme rainfall estimation for UK

Institution: EDF Energy R&D UK Centre (in collaboration with...)

Location: London

Position: Internship

Period: 2013 (flexible)

Duration: 6 months

EDF energy is interested on the actual estimation of the natural hazard potentially affecting its power plants, in order to design the most effective protections against natural extreme events.

In this framework, the aim of the stage will be the development of methodologies adapted to the analysis of high resolution rainfall time series (up to sub-hourly resolution), for the estimation of the extreme high resolution rainfall, including uncertainty and confidence interval around these estimations.

High resolution time series from UK and Europe will be collected. The available time series will be analyzed via empirical analysis of observed maxima, regional frequency analysis, classical extremes value statistical analysis and extreme values statistics analysis based on weather type.

The stage will be carried out in collaboration with EDF France.

The optimal candidate has good knowledge of data analysis and statistics, in particular extreme value statistics knowledge will be appreciated. Previous experience in statistical modeling of rainfall or other meteorological and environmental variable is also appreciated. Software development could be required, using R platform.