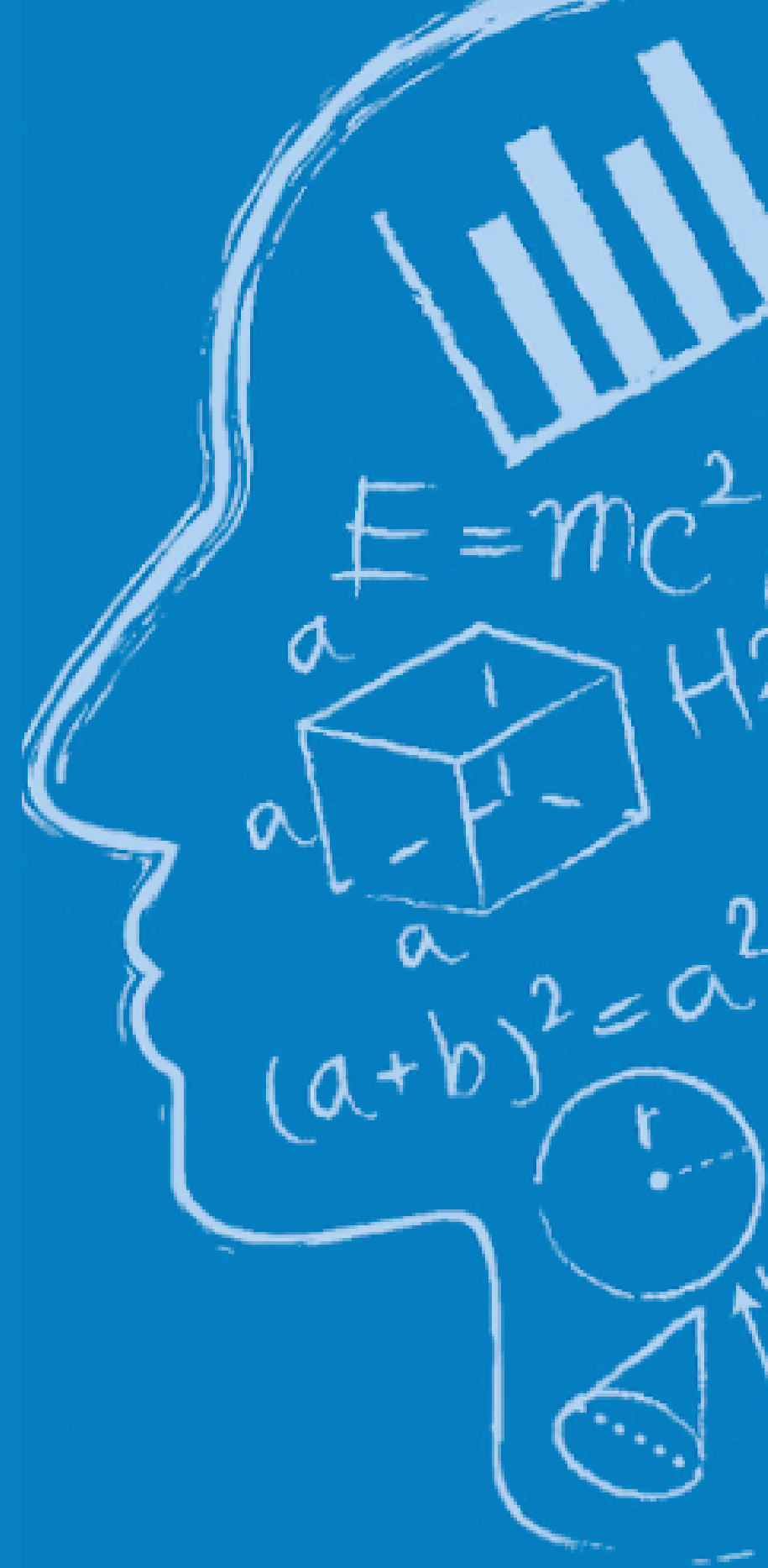


# SEMINAR

## CEAUL & CEMAT



### DEPENDENCE MODELLING OF EXTREME HYDROLOGICAL EVENTS IN CURRENT AND FUTURE CLIMATES

#### ABSTRACT:

In this seminar, Dr. Luis Gimeno-Sotelo will provide an overview of his most recent advances on the extreme value analysis of the main hydrological extreme events (heavy rainfall and droughts) in terms of their main drivers. The most relevant statistical methods for non-stationary extreme value modelling will be presented, as well as a variety of methods from the copula theory to study bivariate extremes and conditional probabilities. He will explain the main applications of these statistical methodologies in the aforementioned environmental context, allowing for the identification of hotspot regions of high statistical dependence between the drivers and the hydrological extremes, as well as the analysis of the projected changes in the probabilities of occurrence of these extreme events in a global warming context.



11:00



22 November, 2024  
Friday



Ciências  
ULisboa C6,  
Piso 4, SASLab  
(sala 6.4.29) &  
**ZOOM**



#### SPEAKER

**Luis Gimeno-Sotelo**

University of Vigo, Spain

Dr. Luis Gimeno-Sotelo is a researcher at the University of Vigo (Spain) whose research interests are aligned with Applied Statistics, with a particular focus on environmental contexts. He holds a Bachelor's degree in Mathematics at the University of Aveiro (Portugal), a Master's degree in Statistics and Operations research at the Faculty of Sciences of the University of Lisbon (Portugal), and a PhD in Water, Sustainability and Development at the University of Vigo (Spain). His research is primarily concerned with the applications of methodologies from the extreme value theory and copula theory to the analysis of extreme precipitation and droughts in current and future climates.