

## **Sessão: Modelação de valores extremos e acontecimentos raros**

### **Estimation methods for the extremal index: a comparative study**

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The occurrence of extreme values may constitute risky situations. In a time series, there is sometimes a tendency towards the occurrence of clusters of extreme values. The duration of extreme values in time can have an impact on our daily lives. Let us think, for example, of the high temperatures during several successive days and the consequences of the resulting extreme drought. The extremal index, in the context of extreme value theory, is an important measure in evaluating the clustering effect of extreme values. In this work we will present some methods for its estimation. Based on a simulation study, we will compare the performance of the presented methodologies. We will end with an application to real data.