



## **Stochastic Modelling of Extreme Rainfall using K-Moments and K-climacogram**

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Assessment of extremes in hydrological processes is crucial in a variety of tasks from engineering design to risk management. Using classical moments to express important attributes of such assessment, proves to be efficient only for low order of moments. However, extreme rainfall events are better modelled using high-order moments. Thus, the newly introduced K-moments are used to model extremes, as they provide better grounds for prediction based on high orders, whilst retaining precision of classical moments for low orders. Additionally, using K-moments to expand the notion of the standard climacogram into the K-climacogram, proves to be a useful tool for better ombrian curve fitting. This study's findings may improve knowledge on how to correctly model and predict such extreme rainfall events, in an era where concerns about the extremes are at peak.