

Stochastic investigation of precipitation process for climatic variability identification

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The precipitation process is important not only to hydrometeorology but also to renewable energy resources management. We use a dataset consisting of daily and hourly records around the globe to identify statistical variability with emphasis on the last period. Specifically, we investigate the occurrence of mean, maximum and minimum values and we estimate statistical properties such as marginal probability distribution function and the type of decay of the climacogram (i.e. mean process variance vs. scale).

Acknowledgement: This research is conducted within the frame of the undergraduate course "Stochastic Methods in Water Resources" of the National Technical University of Athens (NTUA). The School of Civil Engineering of NTUA provided moral support for the participation of the students in the Assembly.