



How extreme are extremes?

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High temperatures have an impact on the energy balance of any living organism and on the operational capabilities of critical infrastructures. Heat-wave indicators have been mainly developed with the aim of capturing the potential impacts on specific sectors (agriculture, health, wildfires, transport, power generation and distribution). However, the ability to capture the occurrence of extreme temperature events is an essential property of a multi-hazard extreme climate indicator.

Aim of this study is to develop a standardized heat-wave indicator, that can be combined with other indices in order to describe multiple hazards in a single indicator.

The proposed approach can be used in order to have a quantified indicator of the strenght of a certain extreme. As a matter of fact, extremes are usually distributed in exponential or exponential-exponential functions and it is difficult to quickly asses how strong was an extreme events considering only its magnitude.

The proposed approach simplify the quantitative and qualitative communication of extreme magnitude