

Understanding changes in short-duration heavy rainfall under global warming: The GEWEX cross-cut on sub-daily rainfall extremes (INTENSE)

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Rainfall extremes appear to be changing around the world but there is little information on how extreme short-duration events might change. This talk will present the aims and objectives of the GEWEX cross-cut on sub-daily rainfall extremes (INTENSE) and work under an associated project. Discussion will be made of new results from 1.5km convection-permitting climate model climate change integrations over southern and northern UK domains, in particular in regard to intensity, precipitation-temperature scaling and duration changes. The construction of a global sub-daily precipitation dataset is underway and this will be presented as well as first results from analysis of trends and precipitation-temperature scaling from this dataset. This talk complements a session on sub-daily precipitation extremes.