

Extreme events in a warming climate

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Global warming affects different types of extreme weather events in different ways. The lecture will present a perspective on heat waves, droughts, rainfall extremes and other extremes. It will discuss thermodynamic effects as well as the recently much discussed changes in the dynamics of the atmosphere, e.g. slowdown and increased meandering of the jet stream, planetary wave resonance and increasing instability of the polar vortex. The latter was responsible for the extreme cold outbreak in Potsdam (and much of Eurasia) in March. (March was colder than January in Germany this year – and April the hottest on record.)