



Observed changes in hourly and daily rainfall extremes in the USA

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Based on theory, we might expect faster increases in sub-daily than daily extremes. We examined this for the USA for hourly and daily rainfall extremes for two time periods (1950-1980, 1981-2011) following a similar method to Fischer and Knutti (2016). We examined changes in frequency and magnitude and compared this to what would be expected according to the Clausius-Clapeyron (CC) rate of 7% increase per degree centigrade. We will present results for different seasons and try to explain the differences for changes in hourly and daily magnitudes and frequencies.