Extreme precipitation events in AR5 models and implications for flash floods

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Changes in extreme precipitation from climate model projections for the 21st century are compared for: (i) no scenario change (CNTRL) and (ii) a range of scenario runs (GHGs). The region of interest is the economically important and hazards prone S. California. We used well-established statistical approaches to achieve the following aims: (i) determine differences in intensity trends, (ii) test for differences between various causal factors using a spectral decomposition tool, and (iii) use kernel density estimation (KDE) for a cluster analysis of CNTRL and EGHG precipitation clusters, and generate their probability distribution functions and consequences for flash floods.