



Singularity Structure and Extreme Rainfall Events in the Indian Monsoon

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50 years of gridded daily rainfall data from rain gauges spread over the Indian land region offer the source of information for studying the evolution of rainfall extremes over climatic scales. The present work analyses the singularity spectra and scaling exponent functions of daily Indian monsoon rainfall over that 50-year period. The evolution of extreme events is inferred from this scaling structure of the rainfall process, which allows a robust estimation, even from relatively short data series. The result is an evaluation of climatic-scale variability of intensity-duration-frequency functions generated by the multifractal rainfall fields.