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Title: Analysis of Extreme rainfall over Central Himalaya using NWP Models
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Abstract:
The Central Himalayan region often faces the problem of disaster due to the extreme rainfall events because of the torrential rains with in few hours due to the local convective systems. It is more challenging task to predict these events at multiple scales. As we know, many of the events prevail during the Indian summer monsoon season so it is very important to predict these systems well in time so that disaster can be mitigated. In the present study the trend of the extreme rainfall events in the mountainous region are being analyzed using the multi-source available data like IMD gridded, IMD station level, NCEP reanalysis, TRMM and APHRODITE etc. Extreme rainfall days are computed using the 24hr accumulated precipitation amounts. Some case studies of the simulation of extreme rainfall over the region are carried out using the WRF model and relative changes in the intensity of precipitation extremes generally well captured by the model. Similarly the capability of various meso-scale models also compared for the better usage of the NWP model to be used for the real time forecasting of extreme weather events over the Central Himalayan Region.
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