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## Application of Merged Precipitation Estimation Technique to Study Intense Rainfall Events over India and Associated Oceanic Region

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### Author(s)

Anoop Kumar Mishra

### ABSTRACT

In this paper, an effort has been made to study heavy rainfall events during cyclonic storms and active monsoon cycle over Indian land and associated oceanic regions from recently developed merged rainfall technique using rain gauge and multi-satellite observations from Precipitation Radar (PR) onboard Tropical Rainfall Measuring Mission (TRMM), Special Sensor Microwave Imager (SSM/I) onboard Defense Meteorological Satellite Program (DMSP) and Meteosat of Eumetsat. Four recent cyclonic events namely Gonu, Bijli, Aila and Laila were qualitatively analyzed using rainfall from this technique. This technique is validated against another merged rainfall product TRMM-3B42V6 and rain gauge observations during heavy rainfall events of the years 2007, 2008, 2009, 2010. Results presented in this study show that the heavy rainfall events are efficiently monitored by this technique.

### KEYWORDS

Precipitation; Remote Sensing; Radar

### Cite this paper

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