



Extreme rainfall events sorted by climatological regime using 11 years of TRMM products

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We search 11 years of rainfall products from the TRMM satellite (36 N - 36 S) and from the TRMM Multisatellite Precipitation Analysis (TMPA, 50 N - 50 S) to define extreme rainfall events on several time and space scales. We are now in a position

to ask whether excessive daily accumulations are characterized by more frequent events, or by a tendency for specific events to be larger, more intense, or a combination of both. We can ask whether extreme daily events are more or less likely to occur in regimes with greater than average monthly or seasonal totals (or not). We first define regimes meteorologically, then evaluate statistics of extreme events. Alternatively, we approach the problem from the opposite direction, selecting regimes from the rainfall statistics themselves, then evaluating the environmental parameters. We show global maps of the population of the largest and most intense events, which tend to be in different locations.