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Bhikhari P Tharu* (btharu@spelman.edu) and **Nirajan Dhakal**. *Spatiotemporal trends in daily precipitation extremes and their connection with North Atlantic tropical cyclones for the Southeastern United States.*

In this study, the linear quantile regression method is employed to analyze spatio-temporal trends of extreme precipitation and to study the impact of North Atlantic Tropical Cyclones in the distribution of extreme precipitation for the Southeastern United States. Daily annual maximum precipitation over the period of 62 years (1950 -2011) for 130 sites was used for the analysis. Our results show that changes in upper quantiles of the distributions of the extreme precipitation have occurred in the Southeastern United States and at, a much higher rate than previously believed. Analysis of the potential changes in the distribution of the extreme precipitation by separating the historical record into two periods, i.e., before and after 1980, reveals that upper-quantile trends have increasing magnitude in most of the sites for the latest time period. Analysis of the impact of tropical cyclones in the extreme precipitation distribution shows that overall, the heavy rainfall events in the recent decades may have been caused by tropical cyclones. (Received September 16, 2017)