



Relationships between Intensity of Extreme Events and Hazard Distribution by the Approach of Typhoons in the Republic of Korea

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The purpose of this study is to determine the spatial characteristics of relationships between intensity of extreme events by typhoons and the typhoon damages at local municipality scales across the Republic of Korea for the recent 15-year period (2000-2014). It is observed that the intensity of extreme events such as heavy rainfall and gusty wind accounts for 50% of the typhoon damages across Korean Peninsula, while the correlations between the two regionally vary. Positive correlations between the intensity of heavy rainfall events and typhoon damages are observed in the southeastern regions of Korean Peninsula, while such statistical significance of patterns is not detected in the northwestern region. Statistical significance of positive relationship between the strength of gusty winds and typhoon damages is found in most of regions except for some interior regions and northeastern mountainous regions.