



## **Characteristics of the Precipitation Extremes over the Urban Areas of the Pearl River Delta of China**

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Located in southern Guangdong Province of China, the Pearl River Delta (PRD) is one of the largest metropolitan regions in the world. The characteristics of the precipitation extremes over the urban areas of PRD are investigated based on TRMM and rain gauge data. It is found that: 1) The precipitation in the urban areas of PRD is much larger than those in its surrounding area at the same latitude, especially during the first rainy season (May and June) over the South China; 2) The heavy rainfall center of middle-northern Guangdong Province is getting closer to PRD with the rapid urban growth during the period 1968–2007; 3) PRD is the maximum (minimum) center of heavy (light) rainfall; 4) The urbanization seems lead to the strengthening in the intensity of precipitation and the reduction in the rainfall frequency over the urban areas of PRD; 5) Urbanization seems significantly affect the convection rainfall but less affect the stratiform rainfall.