

Statistical Analysis of Large Drop Occurrence and Its Effect on Drop Size Distribution Statistical Analysis of Large Drop Occurrence and Its Effect on Drop Size Distribution

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A large data set of raindrop size distribution (DSD) measured by 2-Dimensional Video Distrometer (2DVD) on 12 locations in Japan is analyzed using the truncated modified gamma DSD model and the normalized gamma DSD model. The present study seeks to: 1) explore the general properties of DSD observed at Kanto, Hokuriku, Nagoya, Kinki and Kyushu in Japan; 2) find the governing parameters of DSD models in different geographical and seasonal regime; 3) statistics of big drops occurrence and intrinsic shape of the DSD with extremely large drops; 4) find relationships between DSD parameters such as the shape and slope parameters, the generalized intercept parameter and volume-weighted mean diameter, and etc. The present study on statistical analysis of DSD provide us information which is necessary to understand big drop microphysics and precipitation.

キーワード: large drop, DSD, 2DVD

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