A Big Earth Data Platform for Three Poles

**Raindrop size distribution (DSD) data observed with disdrometers at Dari and Delingha in the northeast of the Tibetan Plateau (TP) (summer 2019)**

1、Description

We provided the raindrop size distribution (DSD) observations with OTT PARSIVEL2 disdrometers at Dari (4096 m a.s.l., 33.55°N, 99.95°E) and Delingha (3137 m a.s.l., 37.47°N, 96.81°E) in the northeast of the Tibetan Plateau (TP) during summer 2019. The disdrometers adopted in the data are manufactured by OTT HydroMet. The process of the Data Quality Control (QC) are described in the paper Microphysical Characteristics of Raindrop Size Distribution and Implications for Radar Rainfall Estimation over the Northeastern Tibetan Plateau. Several rainfall integral parameters calculated from the disdrometer observation were provided. The parameters concluded NT (total number concentration of raindrops, m−3), W (liquid water content, g m−3), R (rain rate, mm h−1), Z (radar reflectivity, mm6 m−3), D0 (median volume diameter, mm), and σm (mass spectrum standard deviation). The gamma parameters (N0, μ, and λ) estimated using the moment method (MM), the maximum likelihood method (ML) are provided. The standardized gamma distribution parameters Nw and Dm are also provided. The measurement of microphysical characteristics of precipitation is very essential to the study of the physical and dynamic processes of rainfall over the TP.

2、Keywords

Theme：DSD,Precipitation,microphysical characteristics of precipitation,Remote Sensing Technology,Precipitation,Radar Weather,QPE
Discipline：Atmosphere,Remote Sensing Technology
Places：Tibetan Plateau, Dari, Delingha
Time：2019 Summer

3、Data details

1.Scale：None

2.Projection：

3.Filesize：5.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：37.48 | - |
| west：96.82 | - | east：99.95 |
| - | south：33.55 | - |

5、Time frame:2019-04-30 16:00:00+00:00--2019-09-29 16:00:00+00:00

6、Reference method

References to data:

LI Qiong, WEI Jiahua. Raindrop size distribution (DSD) data observed with disdrometers at Dari and Delingha in the northeast of the Tibetan Plateau (TP) (summer 2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2719002021

References to articles:

7、Supporting project information

National Key Research and Development Program
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National Natural Science Foundation of China

8、Data resource provider

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