A Big Earth Data Platform for Three Poles

**The daily microwave precipitation dataset of Tibetan Plateau（2015-2017）**

1、Description

The strong spatial and temporal changes of precipitation often make it impossible to accurately know the spatial distribution and intensity changes of precipitation during the precipitation observation of conventional foundation stations. Satellite microwave remote sensing can overcome this limitation and achieve global scale precipitation and cloud observation. Compared with infrared/visible light, which can only reflect cloud thickness and cloud height, microwave can penetrate the cloud, and also use the interaction between precipitation and cloud particles in the cloud and microwave to detect the cloud and rain more directly.
This data use the surface precipitation, obtained by the DPR double wave band precipitation radar carried by GPM, as the true value, soil temperature/humidity of NDVI, DEM and ERA5 as reference data. And the multi-band passive brightness temperature data of GMI is used to invert the instantaneous precipitation intensity during the warm season (May-September) in Tibetan Plateau, then the result is re-sampled to the spatial resolution of 0.1°and accumulated them to a day.

2、Keywords

Theme：Precipitation,Precipitation amount
Discipline：Atmosphere
Places：Tibetan Plateau
Time：2015.5-2017.9

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：11.2MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.5 | - |
| west：73.0 | - | east：105.0 |
| - | south：25.0 | - |

5、Time frame:2015-05-01 00:00:00+00:00--2017-09-30 00:00:00+00:00

6、Reference method

References to data:

XU Shiguang. The daily microwave precipitation dataset of Tibetan Plateau（2015-2017）. A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2701162019

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

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