A Big Earth Data Platform for Three Poles

**A High-Accuracy Rainfall Dataset by Merging Multi-Satellites and Dense Gauges over Southern Tibetan Plateau (2014-2019 Warm Seasons)**

1、Description

The rainfall data set of the southern Qinghai Tibet Plateau is fused by the satellite and the ground station. The data is in ASCII format, with a temporal resolution of 1 day and a horizontal spatial resolution of 0.1 °， The time coverage is from June 10 to October 31 in 2014-2019, which can provide driving data for rainfall verification and hydrological simulation in the southern Tibetan Plateau.
The data set is based on the rainfall data of China Meteorological Administration and Hydrological Bureau of the Ministry of water resources after strict quality control , which is the highest density ground station network in the region so far. Dynamic Bayesian Model Average method is used to merge satellite precipitation products, i.e., GPM-IMERG, GSMaP, and CMORPH, based on the likelihood measurements of a high-density rainfall gauge network. The statistical accuracy evaluation and hydrological simulation verification of the merged data preforms better than the source satellite data, and also better than the popular reanalysis data CHIRPS and MSWEP.

2、Keywords

Theme：Precipitation,Hydrology
Discipline：Terrestrial Surface
Places：Tibetan Plateau
Time：2014-2019, Warm Seasons

3、Data details

1.Scale：None

2.Projection：

3.Filesize：67.5MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：33.3 | - |
| west：80.0 | - | east：99.0 |
| - | south：27.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

LI Kunbiao, TIAN Fuqiang. A High-Accuracy Rainfall Dataset by Merging Multi-Satellites and Dense Gauges over Southern Tibetan Plateau (2014-2019 Warm Seasons). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydro.tpdc.2713032021

References to articles:

7、Supporting project information

8、Data resource provider

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