A Big Earth Data Platform for Three Poles

**Landsat surface temperature products over the Tibetan Plateau (2020)**

1、Description

The dataset is the land surface temperature (LST) product of 2020 over the Tibetan Plateau. The dataset is retrieved based on Landsat images and a practical single-channel (PSC) algorithm. When validated with the simulation data set, the root-mean-square error (RMSE) of the PSC algorithm was 1.23 K. The corresponding quality assessment (QA) product is also generated to identify cloud, cloud shadow, ice and snow. LST is a commonly used land surface parameter, which can provide data product support for the research and applications in resources survey, ecological environment monitoring, global change research and other fields.

2、Keywords

Theme：land surface temperature,Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Qinghai-Tibet Plateau  
Time：2020

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：60.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.4 | - |
| west：73.4 | - | east：106.7 |
| - | south：24.6 | - |

5、Time frame:None--None

6、Reference method

References to data:

ZHANG Zhaoming. Landsat surface temperature products over the Tibetan Plateau (2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2723042022

References to articles:

Wang, M., Zhang, Z., Hu, T., & Liu, X. (2019). A practical single-channel algorithm for land surface temperature retrieval: Application to Landsat series data. Journal of Geophysical Research: Atmospheres, 124, 299–316. https://doi.org/10.1029/2018JD029330

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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