A Big Earth Data Platform for Three Poles

**Landsat surface temperature products over the Tibetan Plateau (1970s-2019)**

1、Description

The dataset is the land surface temperature (LST) product from 1980s to 2019 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：Desert  
Discipline：Terrestrial Surface,Remote Sensing Technology  
Places：Qinghai Tibet Plateau  
Time：1980s-2019

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：252641.28MB

4.Data format：None

4、Space scope

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

5、Time frame:1979-12-31 16:00:00+00:00--2019-12-30 16:00:00+00:00

6、Reference method

References to data:

ZHANG Zhaoming. Landsat surface temperature products over the Tibetan Plateau (1970s-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2715372021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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