A Big Earth Data Platform for Three Poles

**A synthesis dataset of permafrost for the Qinghai-Xizang (Tibet) Plateau, China (2002-2018)**

1、Description

The Qinghai Tibet Plateau is known as "the third pole of the Earth". The long-term and large-scale observation data of permafrost is of great significance to understand the changes and effects of Permafrost on the Qinghai-Xizang Plateau (QXP). Especially in such a cold and anoxic area, the extreme shortage of data resources greatly limits the development, improvement and validation of various remote sensing inversion algorithms, as well as the earth system simulation and scientific research of the QXP. In the past few decades, our research team has established a synthesis network in the permafrost region of the QXP. For the first time, the database systematically integrates the long-time series observation data of 6 automatic meteorological stations, 12 active layer sites and 84 boreholes. In the process of data collection and processing, all observation data have been strictly controlled. The data set will be released to scientists with multi-disciplinary backgrounds (e.g., cryosphere, hydrology, ecology and meteorology), which will greatly promote the validation, development and improvement of hydrological model, land surface process model and climate model of the QXP.

2、Keywords

Theme：Ground temperature,Active layer,Permafrost,Frozen Ground
Discipline：Cryosphere
Places：permafrost, Qinghai-Xizang Plateau
Time：Daily

3、Data details

1.Scale：None

2.Projection：

3.Filesize：4.37MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：37.75 | - |
| west：77.58 | - | east：99.5 |
| - | south：31.82 | - |

5、Time frame:2001-12-31 16:00:00+00:00--2018-12-30 16:00:00+00:00

6、Reference method

References to data:

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7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program
National Natural Science Foundation of China(41931180)
Changes and impacts of glaciers, snow cover and permafrost and how to deal with them
National Natural Science Foundation of China(42071094)

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