A Big Earth Data Platform for Three Poles

**Summer surface air temperature in the Qinghai-Tibetan Plateau and Arctic over the past millennium**

1、Description

We utilized 12 datasets covering the period 900–1999 CE, including two summer temperature gridded datasets from the Qinghai–Tibetan Plateau, two summer temperature series from the Arctic, a summer temperature gridded dataset from the Arctic, six global gridded annual temperature reconstruction datasets, and a last millennium reanalysis dataset with seasonal resolution. We used the optimal information extraction method to reconstruct the summer temperature anomalies in the Qinghai-Tibet Plateau and the Arctic over the past millennium (900–1999 CE) with annual resolution. The range of the Qinghai-Tibetan Plateau is 27°N–36°N, 77°E–106°E, and the range of the Arctic is 60°N–90°N. The reconstruction target is the summer (June–August) temperature anomalies (with respect to 1961–1990 CE period) in the instrumental CRUTEM4v dataset. The data can be used to study the mechanism of temperature variability in the Qinghai-Tibetan Plateau and Arctic over the past millennium.

2、Keywords

Theme：Temperature
Discipline：Atmosphere
Places：Arctic, Tibetan Plateau
Time：Year

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.14MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：27.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

SHI Feng . Summer surface air temperature in the Qinghai-Tibetan Plateau and Arctic over the past millennium. A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2728042022

References to articles:

Shi, F., Duan, A., Yin, Q., Bruun, J.T., Xiao, C., & Guo, Z. (2021). Modulation of the relationship between summer temperatures in the Qinghai–Tibetan Plateau and Arctic over the past millennium by external forcings. Quat. Res. 103, 130-138.

7、Supporting project information

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

8、Data resource provider

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