A Big Earth Data Platform for Three Poles

**1-km monthly minimum temperature dataset for China (1901-2021)**

1、Description

This data is the lowest monthly temperature data of China, with a spatial resolution of 0.0083333 ° (about 1km) and a time of 1901.1-2021.12. The data format is NETCDF, i.e.. Nc format. The unit of data is 0.1 ℃. This dataset is generated in China through the Delta spatial downscaling scheme based on the global 0.5 ° climate dataset released by CRU and the global high-resolution climate dataset released by WorldClim. In addition, 496 independent meteorological observation point data are used for verification, and the verification results are reliable. This data set covers the main land areas in China (including Hong Kong, Macao and Taiwan), excluding islands and reefs in the South China Sea. WGS84 is recommended for data coordinate system.

2、Keywords

Theme：Maximum/Minimum temperature,Temperature  
Discipline：Atmosphere  
Places：China  
Time：1901-2021

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：96972.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：55.5587943901263 | - |
| west：72.1960450229045 | - | east：136.196045022846 |
| - | south：16.2504610568287 | - |

5、Time frame:None--None

6、Reference method

References to data:

PENG Shouzhang. 1-km monthly minimum temperature dataset for China (1901-2021). A Big Earth Data Platform for Three Poles, doi:10.5281/zenodo.31141942020

References to articles:

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Peng, S. , Gang, C. , Cao, Y. , & Chen, Y. . (2017). Assessment of climate change trends over the loess plateau in china from 1901 to 2100. International Journal of Climatology.  
  
Peng, S.Z., Ding, Y.X., Liu, W.Z., & Li, Z. (2019). 1 km monthly temperature and precipitation dataset for China from 1901 to 2017. Earth System Science Data, 11, 1931–1946. https://doi.org/10.5194/essd-11-1931-2019  
  
Peng, S.Z., Ding, Y.X., Wen, Z.M., Chen, Y.M., Cao, Y., & Ren, J.Y. (2017). Spatiotemporal change and trend analysis of potential evapotranspiration over the Loess Plateau of China during 2011-2100. Agricultural and Forest Meteorology, 233, 183-194. https://doi.org/10.1016/j.agrformet.2016.11.129

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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