A Big Earth Data Platform for Three Poles

**Universal Thermal Climate Index (UTCI) dataset of urban areas in China (2012-2021)**

1、Description

Monthly average daytime as well as nighttime data of the Universal Thermal Climate Index (UTCI) for 354 cities in China. The time range of the data is from January 2012 to December 2021, with a temporal resolution of month-by-month. The spatial resolution is 1 km.
The data is mainly based on the MYD07 atmosphere profile dataset and MYD11 land surface temperature dataset provided by MODIS, and incorporates the wind speed provided by ERA5 reanalysis data. The urban boundary is demarcated according to the 2018 data provided by Global Urban Boundary-GUB dataset. All the data are resampled to 1 km, in order to maintain the uniform spatial resolution.
With the rapid urbanization and global warming, the data are useful for studying the spatiotemporal patterns of urban thermal comfortable and related analysis.

2、Keywords

Theme：Urban thermal comfort,Thermal infrared remote sensing,Others,Human-nature Remote Sensing,Remote Sensing Technology
Discipline：Remote Sensing Technology,Human-nature Relationship
Places：China
Time：2012-2021, Monthly

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：20582.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：53.55 | - |
| west：73.55 | - | east：135.08 |
| - | south：3.85 | - |

5、Time frame:2011-12-31 16:00:00+00:00--2021-12-30 16:00:00+00:00

6、Reference method

References to data:

占 文凤 , ZHAN Wenfeng, 王 晨光 , WANG Chenguang. Universal Thermal Climate Index (UTCI) dataset of urban areas in China (2012-2021). A Big Earth Data Platform for Three Poles, doi:10.11888/HumanNat.tpdc.2728062022

References to articles:

7、Supporting project information

Interaction and regional performance of natural and human factors on land surface driven by global change

8、Data resource provider

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