A Big Earth Data Platform for Three Poles

**Future projection data set of surface meteorological elements in East Asia (2006-2098)**

1、Description

The RCM employed is the International Center for Theoretical Physics (ICTP) Regional Climate Model version 4 (RegCM4, Giorgi et al., 2012). The domain used is the Coordinated Regional Climate Downscaling Experiment (CORDEX) Phase II East Asia domain, covering whole of China and its surrounding East Asia areas. The model is run at 25 km gird spacing, with its standard configuration of 18 vertical sigma layers with a model top at 10 hPa. Configuration of the model follows Gao et al. (2016, 2017), with land cover data over China was updated as reported by Han et al. (2015) to better represent the realistic vegetation. The initial and lateral boundary conditions needed to drive RegCM4 are derived from the CMIP5 models of HadGEM2-ES (RCP4.5 pathways), and the data set include temperature and precipitation.

2、Keywords

Theme：Precipitation,Temperature,Precipitation amount,Air temperature
Discipline：Atmosphere
Places：East Asia
Time：2006-2098

3、Data details

1.Scale：None

2.Projection：Lambert\_Conformal\_Conic

3.Filesize：806.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：62.0 | - |
| west：52.0 | - | east：180.0 |
| - | south：-0.3 | - |

5、Time frame:2006-01-06 00:00:00+00:00--2098-12-06 00:00:00+00:00

6、Reference method

References to data:

GAO Xuejie. Future projection data set of surface meteorological elements in East Asia (2006-2098). A Big Earth Data Platform for Three Poles, doi:10.11888/Geogra.tpdc.2710192019

References to articles:

Gao, X.J., Wu, J., Shi, Y., Wu, J., Han, Z.y., Zhang, D.F., Tong, Y., Li, R.K., Xu, Y. & Filippo, GIORGI. (2018). Future changes in thermal comfort conditions over China based on multi-RegCM4 simulations, Atmospheric and Oceanic Science Letters, 11(04), 291-299. DOI: 10.1080/16742834.2018.1471578

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

name: GAO Xuejie
unit:
email: gaoxuejie@mail.iap.ac.cn