A Big Earth Data Platform for Three Poles

**Arctic Snow Water Equivalent Grid Dataset (1979-2019)**

1、Description

Snow water equivalent (SWE) is an important parameter of the surface hydrological model and climate model. The data is based on the ridge regression algorithm of machine learning, which integrates a variety of existing snow water equivalent data products to form a set of snow water equivalent data products with continuous time series and high accuracy. The spatial range of the data is Pan-Arctic (45 N° to 90 N °), The data time series is 1979-2019. The dataset is expected to provide more accurate snow water equivalent data for the hydrological and climate model, and provide data support for cryosphere change and global change.

2、Keywords

Theme：Snow,Snowpack,Snow water equivalent  
Discipline：Cryosphere  
Places：Arctic  
Time：1979-2019, by day

3、Data details

1.Scale：None

2.Projection：North\_Pole\_Stereographic

3.Filesize：109286.25MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：45.0 | - |

5、Time frame:1979-01-30 16:00:00+00:00--2019-12-30 16:00:00+00:00

6、Reference method

References to data:

WANG Weiguo, SHAO Donghang, MA Yuan, LI Hongyi, LEI Huajin, LI Haojie. Arctic Snow Water Equivalent Grid Dataset (1979-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Snow.tpdc.2715562021

References to articles:

7、Supporting project information

Chinese Academy of Sciences through the Strategic Priority Research Program  
Science & Technology Basic Resources Investigation Program of China “Investigation on snow characteristics and their distribution in China”

8、Data resource provider

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