A Big Earth Data Platform for Three Poles

**A new MODIS snow cover extent product over China（2000-2020）**

1、Description

For the snow distribution area in China, we prepared a MODIS day-by-day cloud-free snow area dataset with a spatial resolution of 500m from 2000 to 2020 based on the MODIS reflectivity product MOD/MYD09GA, using a decision tree snow discriminant algorithm for different surface types and a vacancy filling algorithm such as a spatiotemporal interpolation algorithm for the hidden Markov random field model. The dataset is stored in HDF5 file format, and each HDF5 file contains 18 data elements, which include data values, data start date, latitude, and longitude. Meanwhile, for a quick preview of snow distribution, the day-by-day file contains snow area thumbnails stored in jpg format. This dataset will be continuously supplemented and improved based on real-time satellite remote sensing data and algorithm updates (currently through December 2020), and will be shared in a fully open sharing format.

2、Keywords

Theme：Snow,Snowpack
Discipline：Cryosphere
Places：China
Time：2000-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：72704.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：56.0 | - |
| west：72.0 | - | east：142.0 |
| - | south：16.0 | - |

5、Time frame:2000-02-27 16:00:00+00:00--2020-12-30 16:00:00+00:00

6、Reference method

References to data:

HAO Xiaohua. A new MODIS snow cover extent product over China（2000-2020）. A Big Earth Data Platform for Three Poles, doi:10.11888/Snow.tpdc.2713872021

References to articles:

7、Supporting project information

8、Data resource provider

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