A Big Earth Data Platform for Three Poles

**Elevation geomorphology slope direction of Heihe river (2013-2016)**

1、Description

Two sets of grid data, aster GDEM data with a resolution of 30 meters and SRTM data with a resolution of 90 meters provided by the data management center of Heihe project, as well as point data from multiple sources, are used. By using the HASM scaling up algorithm, the grid data of different sources and different precision are fused with the elevation point data to obtain the high precision slope direction data of Heihe River Basin. First of all, the accuracy of two groups of grid data is verified by using various point data. According to the results of accuracy verification, different grid data are used as the trend surface of data fusion in different regions. The residuals of various point data and trend surface are calculated, and the residual surface is obtained by interpolation with HASM algorithm, and the trend surface and residual surface are superposed to obtain the final slope surface. The spatial resolution is 500 meters.

2、Keywords

Theme：Topography,Slope
Discipline：Terrestrial Surface
Places：Heihe River Basin
Time：2013-2016

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：1.0MB

4.Data format：img

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：98.0 | - | east：101.5 |
| - | south：38.0 | - |

5、Time frame:2013-01-08 03:00:00+00:00--2016-08-08 03:00:00+00:00

6、Reference method

References to data:

ZHAO Na, YUE Tianxiang. Elevation geomorphology slope direction of Heihe river (2013-2016). A Big Earth Data Platform for Three Poles, 2016

References to articles:

岳天祥等. 2017. 地球表层模拟分析原理与方法. 北京：科学出版社.

7、Supporting project information

8、Data resource provider

name: YUE Tianxiang
unit: Institute of Geographic Sciences and Natural Resources Research,Chinese Academy of Sciences
email: yue@lreis.ac.cn

name: ZHAO Na
unit:
email: zhaon@lreis.ac.cn