A Big Earth Data Platform for Three Poles

**Digital elevation model of the Heihe river basin (2013-2016)**

1、Description

Adopt aster with 30 meter resolution provided by Heihe project data management center GDEM data and 90 meter resolution SRTM data are two sets of grid data, as well as multi-source point data. These point data include radar point cloud elevation data in the middle and upper reaches; elevation data extracted from soil sample points and vegetation sample in the data management center of Heihe plan; elevation data extracted from climate and hydrological stations; and elevation sample data measured by the research group. 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 DEM 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 DEM surface. The spatial resolution is 500 meters.

2、Keywords

Theme：Digital elevation model,Topography  
Discipline：Terrestrial Surface  
Places：Heihe River Basin  
Time：2013-2016

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：12.0MB

4.Data format：img

4、Space scope

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

5、Time frame:2013-01-06 06:00:00+00:00--2016-08-06 03:15:00+00:00

6、Reference method

References to data:

ZHAO Na, YUE Tianxiang. Digital elevation model of the Heihe river basin (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

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