A Big Earth Data Platform for Three Poles

**Lithospheric structure in Cathaysia Block**

1、Description

The data set is mainly shown in the article https://doi.org/10.1016/j.pepi.2019.04.003 In the study of the. In this study, 19 inversion points were selected based on the seismic stations in the Cathaysia Block. Under the constraint of shallow P-wave velocity, the joint inversion of the P-wave receiver function and surface wave dispersion was carried out, and the S-wave velocity structure under the station was obtained.  
The dataset contains 19 files in the format of DAT, such as cathaysia01.velocity.dat.  
The data set can be used to show the velocity structure of the lithosphere in the Cathaysia Block and to see the deep mechanism corresponding to a large amount of granite outcropping in the area.

2、Keywords

Theme：Joint inversion,Receiver function,Seismic velocity,Tectonics,Seismology  
Discipline：Solid earth  
Places：Cathaysia Block  
Time：2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.0674MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：28.0 | - |
| west：108.0 | - | east：118.0 |
| - | south：20.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

DENG Yangfan. Lithospheric structure in Cathaysia Block. A Big Earth Data Platform for Three Poles, doi:10.11888/Geo.tpdc.2714182021

References to articles:

Deng, Y., Li, J., Peng, T., Ma, Q., Song, X., Sun, X., ... & Fan, W. (2019). Lithospheric structure in the Cathaysia block (South China) and its implication for the late Mesozoic magmatism. Physics of the Earth and Planetary Interiors, 291, 24-34.

7、Supporting project information

Deep processes and resource effects of major geological events during the Yan Mountains period

8、Data resource provider

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