A Big Earth Data Platform for Three Poles

**Cross-correlation fucntion, seismic station and S-wave velocity data set in the Jiuyishan and adjacent area (2016-2017)**

1、Description

The data include the cross-correlation function extracted from the continuous seismic background noise data of vertical component recorded by 54 fixed seismic stations and 17 mobile seismic stations in Jiuyishan and its adjacent area from May 2016 to June 2017, and the final inversion of crustal S-wave velocity. The dispersion curves of group velocity and phase velocity of 2-40s are obtained by time-frequency analysis. The inversion imaging results show that the structural characteristics of the crust and upper mantle of the Yangtze block and the Cathaysian Block are significantly different. The S-wave velocity distribution map of 10-20km shows linear and continuous low velocity anomalies, which may be the specific boundary between the Yangtze block and the Cathaysian Block. The imaging results provide seismological constraints for understanding the tectonic evolution history of South China. The uploaded data provide valuable data and information for others to further study the structural characteristics of Jiuyi mountain and its adjacent areas.

2、Keywords

Theme：Crust mantle structure,Seismic velocity,Seismology  
Discipline：Solid earth  
Places：Jiuyishan  
Time：2017, 2016

3、Data details

1.Scale：None

2.Projection：

3.Filesize：40.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：28.5 | - |
| west：109.0 | - | east：115.5 |
| - | south：22.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

Cross-correlation fucntion, seismic station and S-wave velocity data set in the Jiuyishan and adjacent area (2016-2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Disas.tpdc.2713422021

References to articles:

李健明, 孙新蕾, 王爽, 何立朋, 范安, 张鹏. (2020). 九疑山及邻区地壳结构噪声成像及其对华南地区的构造演化启示. 地球物理学报, 63(1), 184-195.

7、Supporting project information

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

8、Data resource provider