A Big Earth Data Platform for Three Poles

**Three dimensional upper mantle velocity model beneath the Sichuan-Yunnan region**

1、Description

The data set is the three-dimensional upper mantle velocity model in Sichuan-Yunnan region obtained by applying the full-waveform adjoint tomography. First, the seismic waveform data is applied from National Earthquake Data Center. Using the collected seismic waveform data, we intercept the seismic phase data with high signal-to-noise ratio according to the seismic events. After removing the mean and trend and filtering, the data are used to obtain the three-dimensional upper mantle velocity model in Sichuan-Yunnan region by applying the waveform adjoint tomography. The model can be used for further study on valuable scientific issues such as the mechanism of the preparation of large earthquakes and tectonic evolution of the lithosphere in Sichuan-Yunnan region and the eastward extrusion of the Tibetan Plateau.

2、Keywords

Theme：Crust mantle structure,Tomography,Seismology  
Discipline：Solid earth  
Places：Sichuan-Yunnan region  
Time：nothing

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：14.4MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.2 | - |
| west：96.8 | - | east：107.2 |
| - | south：21.8 | - |

5、Time frame:None--None

6、Reference method

References to data:

YANG Dinghui . Three dimensional upper mantle velocity model beneath the Sichuan-Yunnan region. A Big Earth Data Platform for Three Poles, doi:10.11888/SolidEar.tpdc.2725782022

References to articles:

7、Supporting project information

The study on multi-scale and high-resolution structures, deformation patterns and background of large earthquakes preparation and occurrence beneath the Sichuan-Yunnan region

8、Data resource provider

name: YANG Dinghui   
unit: Tsinghua University  
email: ydh@tsinghua.edu.cn