A Big Earth Data Platform for Three Poles

**Three dimensional S-wave attenuation model of the upper mantle beneath the Sichuan-Yunnan region**

1、Description

The data set is the three-dimensional upper mantle S-wave Q 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 S-wave seismic phase data with high signal-to-noise ratio according to the seismic events, and extract the S-wave amplitude information after removing the mean and trend and filtering. Finally, the S-wave amplitude data are used to obtain the three-dimensional S-wave attenuation 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 tectonic evolution of the lithosphere in Sichuan-Yunnan region and the eastward extrusion of the Tibetan Plateau.

2、Keywords

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

3、Data details

1.Scale：None

2.Projection：

3.Filesize：14.4MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：34.0 | - |
| west：96.0 | - | east：106.0 |
| - | south：22.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

YANG Dinghui . Three dimensional S-wave attenuation model of the upper mantle beneath the Sichuan-Yunnan region. A Big Earth Data Platform for Three Poles, doi:10.11888/SolidEar.tpdc.2725892022

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