A Big Earth Data Platform for Three Poles

**Dataset of spatial and temporal distribution of global strong earthquakes (1989-2018)**

1、Description

This data set is used to analyze the global activity level of strong earthquakes (Mw 5) in the past 30 years, and to present it spatially. It can be used to obtain the distribution areas of strong earthquakes with high frequency and activity level in recent years. By comparing the distribution of strong earthquakes in 2018 with that in 1989-2018, the distribution characteristics of global strong earthquakes in 2018 are obtained. The original data of strong earthquakes are from USGS, and the local density is calculated as frequency information. The magnitudes of all earthquake cases are interpolated globally, and then the frequency and magnitude are multiplied as the activity level of strong earthquakes. The data set is in TIff format with a spatial resolution of about 80 km. The data set can provide a reference for the analysis of strong earthquake activity level on the global scale, and is helpful for the analysis of global earthquake risk and the construction of earthquake prevention and disaster reduction system.

2、Keywords

Theme：Earthquake occurrences,Natural Disaster,Seismology,Earthquakes
Discipline：Human-nature Relationship,Solid earth
Places：研究区域为全球范围
Time：研究时间段为1989-2018近三十年

3、Data details

1.Scale：125000000

2.Projection：WGS84

3.Filesize：0.5MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：72.3 | - |
| west：180.0 | - | east：180.0 |
| - | south：87.5 | - |

5、Time frame:1989-01-14 00:00:00+00:00--2019-01-13 00:00:00+00:00

6、Reference method

References to data:

WU Jianjun, ZHOU Hongmin, Chen Jin, Tang Hong. Dataset of spatial and temporal distribution of global strong earthquakes (1989-2018). A Big Earth Data Platform for Three Poles, doi:10.11888/Disas.tpdc.2702062019

References to articles:

7、Supporting project information

8、Data resource provider

name: Chen Jin
unit: Beijing Normal University
email: 201831051044@mail.bnu.edu.cn

name: Tang Hong
unit: Beijing Normal University
email: tanghong@bnu.edu.cn

name: ZHOU Hongmin
unit:
email: zhouhm@bnu.edu.cn

name: WU Jianjun
unit:
email: yaopp@radi.ac.cn