

The identification and removal of artificial earthquakes from the JMA and university earthquake catalogs.

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A large number of artificial earthquakes are included in the JMA and university earthquake catalogs. The epicenter distribution of artificial earthquakes usually shows clusters of earthquakes. Each cluster of artificial earthquakes occurs at a specific time of day and has a pattern of double peaks. On the other hand natural earthquakes occur at any time of the day and have a random pattern. Artificial earthquakes can be identified and removed from the earthquake catalog by the difference of their occurrence time distribution.

As a result of this research, 1,329 artificial earthquakes were removed from the earthquake catalog of Tohoku University. In addition, 548 artificial earthquakes were removed from the earthquake catalog of JMA.