

## Quantitative evaluation of seismic activity in Chugoku District

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A quantitative evaluation of seismic activities was carried out by using a GIS software to find out characteristics of earthquake activities in Chugoku district. Line-shaped areas of a continuity of an earthquake distribution were determined. Then, it was compared with the gravity anomalies distribution, geographical features distribution and a geology distribution spatially.

Seismic energies of a mesh for one minute were computed using GIS software. The line-shaped areas are computed from the seismic activity, and it concentrated on the boundary part of gravity anomalies. Those areas are eastern - western areas of Tottori Prefecture and an eastern area of Shimane Prefecture - a central area of Yamaguchi Prefecture. Changing areas of the gravity anomaly are determined to reflect underground fault structures (Honda et. al., 2001). It is determined that underground fault structures exist in Sanin area that the continuity of the seismic activities corresponds with the line-shaped areas of the gravity anomaly. On Hiroshima Prefecture central parts and Okayama Prefecture central parts, earthquakes occurred in a low gravity anomaly area, and there is not corresponded with the line-shaped areas. It does not correspond with line-shaped areas of seismic activities as to the gravity anomaly in Yamazaki fault area.