Multivariate statistical analysis for seismotectonic zonation by the use of earthquake, active fault and crustal structu

Takashi Kumamoto[1]*, TSUKADA, Masataka[1]

[1]Graduate School of Natural Science and T

A new seismotectonic province map is presented here, that is especially useful for the seisimic hazard assessment of blind earthquakes with Mw around 6.5. The 2nd order mesh with ca.10x10 km covering all over Japan by GIS is adopted for statistical analysis, such as the principal component analysis and cluster analysis. The parameters used in this study are the data of gravity anomaly, width of seismogenic layer, distribution of active faults and observed seismicity. The result shows the quantitative spatial similarities and new borders between seismically active and inactive regions.

Keywords: active fault, magnitude, seismotectonic zonation