

## Japanese University Joint Seismic Observations at the Niigaka-Kobe Tectonic Zone

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### 1. Introduction

Analyses with spatially dense GPS array suggested the existence the high strain rate zone from Niigata to Kobe, which is called as the Niigata-Kobe Tectonic Zone (NKTZ). The structure of the zone will be important to know the mechanism of the stress and strain accumulations in Japan. The Atotsugawa fault, which is a right-lateral fault, is located in NKTZ. Many small earthquakes are located at the Atotsugawa fault. The large heterogeneous structure was obtained at the Atotsugawa fault. This area will be important to know the mechanism of the inland earthquakes. The Japanese university joint seismic observations are conducting at NKTZ for five years from 2004.

### 2. Seismic observations

We are conducting seismic observations at the area. Many universities, e.g. Hokkaido University, Hirosaki University, Tohoku University, Tokyo University, Nagoya University, Kyoto University, Kyushu University, Kagoshima University, etc., join to the seismic observation. The 73 seismic stations are located at the area that the size is 100 km x 100km. The seismic stations consist of 63 seismic stations with telemetry system and 10 seismic stations with portable type recorder. We are planning to study the seismic activity and crust and mantle structures at the area.

Many analysis groups, e.g. seismicity, seismic tomography, receiver function, source mechanism, reflection and scattering studies, shear-wave splitting, low-frequency earthquake, modeling, auto-picking system, and Q structure, are organized. The seismic-observation and analysis reveal the mechanism of the inland earthquakes.