

## Precise hypocenter determination of Offshore Ito earthquake swarms in 1998

# Yoshinari Hayashi [1], Yuichi Morita [2], Shin'ichi Sakai [3]

[1] E.R.I., Univ. Tokyo, [2] E.R.I. Univ. of Tokyo, [3] Earthquake Research Institute, Univ. of Tokyo

In 1998 Offshore Ito earthquake swarms, we found out an earthquake family activity which is defined as a group of earthquakes having a similar waveform. From analyzing their waveforms, an earthquake family activity is composed by several clusters of earthquakes that occur separately in time, but closely in location. Using the similarity of waveform, we re-examine the hypocenter of the clusters precisely. Each cluster activity continued in 2-3 hours and its shape looks like a cylinder. In each cluster, an earthquake occurs in the shallower part at first, and the focal depths are increasing gradually. The increasing speed is 2-3km/hr. The characteristics mentioned above may be caused by the mechanism that control the whole swarm activity. We will continue to study on the mechanism.