Seismicity around plate boundary off Fukushima using earthquakes with similar waveforms

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In August 1998, we carried out an ocean bottom seismographic observation at front area of seismogenic zone (called 'seismic front') under inner trench wall, off Fukushima. The hypocenter distribution correlates well with the shapes of bending slab. However, almost all earthquakes occur in the subducting oceanic crust. They include many earthquake swarms with similar waveforms. A relative hypocenter determination using cross spectral analysis method shows that region of each swarm has 200-300m in width and 500-600m in depth. They seem to make planes with higher dip angles than that of subducting oceanic plate, and those mechanisms don't show thrust type. It is suggested that the existence of microseismicity in oceanic crust around seismic front off Fukushima.