Waveform analysis for early warning systems in Tonankai source area

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DONET are working on the deployments of the ocean floor network system with 20 seismometers, tsunami meters, and GPS sensors in the seismogenic zone with the mega-thrust earthquakes. One of purpose of this project is to detect signals immediately from M8 class mega-thrust earthquakes and tsunamis in ocean area and contribute to the disaster reduction and mitigation. In this network system, each station will be connected using optical cable with high dense array configured in the average interval of about 20 km and transfer the signals from events to land stations within one second. In this presentation, we introduce one methodology analysis of waveforms using this ocean floor network data to construct the early warning system and discuss its feasibility taking the 1944 Tonankai source model as an example.