

Urgent seismic observation for the 2014 Northern-Nagano Prefecture Earthquake and complex fault system

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The 2014 Northern-Nagano Prefecture Earthquake (MJMA 6.7) occurred in central Japan at 22:08 on November 22, 2014 (JST). A temporal seismic network has deployed two days before the main shock, because an earthquake swarm occurred 4 days ago. Then the main shock occurred and the region of aftershocks spread, we installed jointly 13 new observation sites to determine the seismic activity. It was possible to decide the precise hypocenters because observational data located right above the main shock was used. Strong lateral heterogeneity in the velocity of the source area resulted in the locations of the epicenters determined in this study being located approximately 2.5 km east of those reported by the JMA routine catalogue. Using those high-resolution seismic data for early days, one major source fault and some minor faults were identified. The main shock located on the high angle distribution that eastern dipped. Much distribution is also existed, and those aren't always parallel with the inclination of the main shock.

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