

Fault planes of the 1998 Hida earthquake swarm derived from focal mechanisms and precise hypocenter distributions

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There was a large earthquake swarm in the deepest part of the Hida mountains of 3000m high, central Japan. A dimension of the swarm is 40km in the north-south and 10km in the east-west. We have relocated hypocenters and focal mechanisms of about 200 events of M2 to M5. Predominant mechanism is strike-slip faulting with P-axis in the NW-SE direction, which is consistent well with regional tectonic stresses in the central Japan. Faulting planes and expanding processes of aftershock area of the about 10 major events have been determined by relative hypocenter distribution of nearby events determined by master-event method. Faulting plane striking in the E-W direction dominates in Kamikochi and Yurigatake areas, while that in N-S direction does in Hotaka-dake and Nogutagoro-dake areas.