

## Study on Depth Dependent Characteristics of Main Rupture Area of Fault Model and of Parameters

# Toru Ishii[1], Toshiaki Sato[2]

[1] Izumi Research Institute, Shimizu Corp., [2] Ohsaki Research Institute

Depth dependent characteristics of main rupture areas of fault models and of parameters are studied by using several inversion data of inland and subduction earthquakes. The relations between the relative depth and the relative parameters, which are the relative area, the relative seismic moment, the relative slip amount and the relative slip velocity, in the main rupture area are examined at each depth of the mesh elements. The relative areas of a couple of strike-slip inland earthquakes seem almost constant for all depths. The relative areas of an oblique-slip inland earthquake increase as the depth increase and become almost constant in case of more than 0.5 in relative depth. The relative areas of reverse-slip earthquakes fluctuate as the depth changes. The depth dependent characteristics of seismic moments are also similar to those of relative areas mentioned above. In strike-slip and oblique-slip inland earthquakes the relative slip amounts and the relative slip velocities are almost constant, but in reverse-slip earthquakes they fluctuate very much as the depth changes. It seems that the depth dependent characteristics also depends on the top depth of the fault plane.