Sw-P002

Estimation of S-wave velocity structure at a hangingwall site and a footwall site of Chelungpu fault by using microtremor records

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We estimated S-wave velocity structures at a hangingwall site and a footwall site (TCU049) of Chelungpu fault by using array records of microtremors. The thickness of a layer with S-wave velocity of 1100m/s is estimated to be 150m at the foowall site in the northern part of the Taichung basin. That thickness was estimated to be 1000 to 1400m in the central part of the Taichung basin (Satoh et al., 2000). These results show that the underground structure is rapidly changed between the northern and central parts of the Taichung basin. We found a surface layer has higher S-wave velocity than the shallowest subsurface layer at the hangingwall site. Except for the surface layer, the same S-wave velocities as for the footwall sites can explain phase velocities observed at the hangingwall site.