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## Examination of integrated velocity model of shallow and deep structure in Niigata Prefecture using microtremor measurement

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It is one of the important problems to construct about the ground model who is appreciable of seismic ground motion characteristics of the wideband of about 0.1-10 seconds to upgrade the estimation of strong ground motion. It is indispensable to integrate the shallow and deep structure model by whom modeling has been separately executed up to now, and to advance making of the model who can reproduce the record of seismic observations. In order to overcome the above problem, we executed a lot of microtremor measurements in and around the sedimentary basins. And we are studying the upgrade of the integrated subsurface structure model by using the phase velocities of the Rayleigh waves and H/V spectrum ratio obtained from the microtremor measurements together with the establishment of the technique itself. In this study, the S wave velocity structure, Q value, and the amplification characteristic were examined in detail.

Keywords: Integrated structure model, strong-motion, microtremor measurements, S-wave velocity, Q-value