Characteristics of seismic motion and deep subsurface structure in the northeastern part of Sapporo

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Records from an intermediate earthquake are analyzed to study effects of subsurface structure in the part of northeastern Sapporo. First, S wave inside the basin is synthesized with 1D structure made from microtremor exploration and the result shows that observed S can be explained with 1D structure.

Basin induced surface wave(BIS) is observed inside the basin. To investigate the relation between BIS and subsurface structre, we made 2D subsurface structure and try to simulate these waves. However the result shows that BIS is generated at the basin edge and propagate in the basin, the synthetic doesn't agree with observed waveform well.