

**Simple Method for Locating the Irregular Ground where the Engineering Bedrock is
Inclined by Means of Microtremor Observations**

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Seismic ground motion can be locally amplified at the site where the engineering bedrock is inclined. The amplification due to the irregular ground should be taken into consideration in design ground motion. So, it is necessary to judge whether the engineering bedrock of the site is irregular or not. This irregularity is judged from the shape evaluated by interpolation between some soil surveys. The surface ground under railway / road structures greatly varies with the construction site and there is a possibility of overlooking the irregular ground. In this paper, we proposed the estimation method of the shape of the engineering bedrock using the vertical Fourier spectrum by microtremor observations. Specifically, the ratio of the vertical Fourier spectrum according to the depth of the engineering bedrock is estimated based on the theory of identifying the Green's function between sites. Finally, we performed microtremor observations on the irregular ground and it is confirmed that the shape of the bedrock can be estimated appropriately.