

**An Analytical Study on Applicability of
a Hammering Measurement Method to Rock Stability Evaluation**

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We analyzed vibration of concrete blocks which simulate rocks on natural slopes with the finite element method. We compared the result of the finite element method with experimental results in order to check the validity of the analysis model. And, we examined the result of the modal analysis in order to study applicability of the hammering measurement method to the stability evaluation of rock blocks. Velocity spectra that we got using the finite element method were almost the same as the sound spectra in the experiment. As a result, the validity of the analysis model was confirmed. By the modal analysis, it was clarified that we could figure out the difference of stability of rock blocks using the hammering measurement method.