Fundamental Study on the Evaluation Method of Mechanical Stability of Rock Blocks by Remote Vibration Measurement

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Some techniques for rock slope evaluation by means of vibration measurements have been developed. Those techniques apply the vibration characteristics of rock block such as predominant frequency as a risk assessment index of rock block falling. The authors executed some physical model tests and numerical analyses using concrete blocks bonded to the concrete base with different contact conditions, and found that a predominant frequency varied with the stability of the concrete block. We will continue to research for obtaining the quantitative relationship between vibration characteristics and mechanical stability of rock blocks.