A Study on the Quantitative Evaluation Method of Rockfall Risk by Remote Vibration Measurement

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This report introduces the results of study on the evaluation method of rockfall risk by remote vibration measurement. First, the 3D long-distance remote microtremor measurement system and the remote control system to form the reflective targets on a distant rock slope were developed. Subsequently, a new quantitative evaluation method of rockfall risk was proposed based on the result of model experiments by using concrete blocks bonded to the concrete base with different adhesion condition. Furthermore, the remote vibration measurement of real rock slope was executed, and the results corresponded with the results of the visual inspection, the hammering test, and the other vibration investigation method.