

**Development of an Aerial Survey System and Numerical Analysis Modeling
Software of an Unstable Rock Block**

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The authors have been studying on the evaluation method of rock slope stability by applying a non-contact vibration measurement technique. To improve the accuracy of the evaluation method, consideration of the information of the rock block scale, shape and support condition is indispensable. Accordingly, we first developed an aerial survey system of the rock block shape. Next, we developed software by which the three dimensional Finite Element analysis model can be automatically generated from the obtained rock block shape data. Finally, we proposed a rockfall risk evaluation technique using the parametrical analysis results of the FE analysis model on the support condition and the load that acts on the rock block.