

Research about dynamic property assessment method of rocks

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Basis rock of concrete dam is constructed with a mass of deformed rock, not uniform rock, of multiple rock levels with different intensity characteristics. In order to rationalize the design of concrete dam, it has been required to develop the method of correctly assessing intensity characteristics of such rocks. In this study, hard-soft compound rock model was created, interior shear test was conducted by changing emergence area as well as emergence site of soft rock, and process of rock model resulting in shear failure was recreated by nonlinear FEM analysis. Based on these results, shear strength property of hard-soft compound rock was analyzed.

Keywords: concrete dam, basis rock, shear strength, soft rock, interior shear test, nonlinear analysis