

ACMS Applied Math Seminar

LING XU

**Wed, Nov 12
129 Hayes-Healy
3:00 PM**



Modeling Material Failure and Rock Joint using the Material-Point Method

Rock fractures upon a large explosive loading. Joints are often seen in rock. Thus there is an inherent need to include these features when performing analyses on the safety of underground structures such as tunnels. In this work, we studied the damage near an tunnel subjected to an explosion at some distance. A numerical model is developed, based on an elastic-decohesive constitutive equation. The Material-Point method is applied to simulate such a process.

The Department of Applied and Computational
Mathematics and Statistics

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