Modern Strategies for Characterizing and Forecasting Rockfall Hazard

G. Walton

Colorado School of Mines

Rockfall is a common hazard in mountainous regions within the United States and around the world. Effective management of these hazards requires both characterization of the hazard as it exists today and forecasting of how the hazard may evolve into the future. Traditional approaches for rockfall hazard characterization provide a relatively coarse categorization of relative hazard, and many methods based on in-field assessments are limited in terms of their accuracy. In this talk, techniques for rockfall hazard assessment using point-cloud-based monitoring are presented in the context of the literature, and practical recommendations for slope assessment are provided. Then preliminary efforts to develop evidence-based approaches for forecasting changes in hazard over time are presented.

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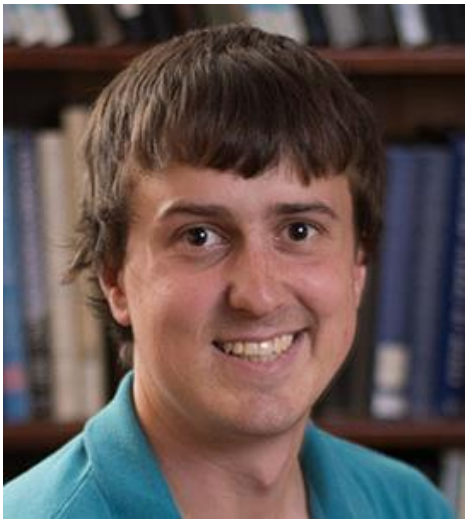

Dr. Gabriel Walton is a Professor and Associate Department Head in the Department of Geology and Geological Engineering at the Colorado School of Mines. He holds a Ph.D. and B.A.Sc. in Geological Engineering from Queen's University in Canada. Dr. Walton's research focuses on numerical modeling of slopes and underground structures, rock mass characterization, and applications of geophysics and remote sensing in geological engineering.

Dr. Walton currently serves as Vice President of ARMA and as an Associate Editor for the journal Rock Mechanics and Rock Engineering. He was the Organizing Committee Chair for the 2024 ARMA symposium in Golden, Colorado. In 2024, he received the Young Rock Engineer Award from the International Society for Rock Mechanics and Rock Engineering.