#### DEPARTMENT OF GEOSCIENCES AND GEOLOGICAL & PETROLEUM ENGINEERING

# Explosive Engineering and Force Protection

# Improvised Explosive

- Explosively Formed Projectile
- Improvised Linear Shaped Charge
- Buried Explosive Charges
- Breach Charge Penetration Performance

## **Armor Design**

- Vehicle protection from EFPs
- Vehicle protection from Buried IEDs
- Light Weight Ballistic Armor
- Rocket Propelled Grenade (RPG) Armor

## Explosively Driven Pipe Collapse

 Modeling Explosive Lensing on a Cylindrical Body in Air

#### Simulations of Explosive Events

- ANSYS
- CTH
- Velodyne



PoC: Phillip Mulligan, Ph. D. Research Assistant Professor Geological Engineering Phone: 573-341-4515
E-mail: Pmulligan@mst.edu

Imaging and Characterization of Explosive and Energetic Systems

# Keywords

 #Explosives, #ArmorDesign, #ShockPhysics, #HPC, #ForceProtection, #Blasting, #Energetics, #Simulations

### Recognitions

American Physical Society Early Career Travel Award

#### Scholars' Mine

https://works.bepress.com/phillip-mulligan/

