

# NUMERICAL MODELLING OF BLAST MITIGATION SYSTEMS

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Granular materials have been used as blast mitigants for enclosed and free field explosive experiments for many decades. The validation of a proposed mitigation scheme is often performed empirically, proving costly and hazardous. In this paper we consider the processes occurring as an explosive interacts with a surrounding layer of mitigation and identify why it is important to model these processes as a multiphase material problem.

We also consider the interaction with the surrounding structure when used in an enclosed environment. Results from a recent experimental series performed at AWE, as well as previously reported explosive trials, are compared to calculations using the EDEN hydrocode (Fluid Gravity Engineering).