

Structural integrity under extreme loads

Topic: High-fidelity models of blast/ballistic impacts

TITLE: Triggering the detonation of high-explosives through blast waves and fragments

RESEARCH BACKGROUND:

The detonation of high-explosive materials may be triggered by impacting blast waves and fragments. Studying this phenomenon may be beneficial for the deployment of countermeasures to intercept threats before they reach the target.

RESEARCH ACTIVITIES:

1. Literature review on current materials and explosives.
2. Numerical simulation of scenarios that can trigger the detonation of high-explosives.
3. Statistical characterization of the fragmentation of exploding devices.

METHODOLOGY: Analytical-Numerical

DURATION: 6 months

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