

SAFETY ASPECTS UNDER DYNAMIC LOADINGS: NUMERICAL DESIGN AND EXPERIMENT

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SUMMARY

The primary aim of this mini-symposium is to provide a forum of discussion for recent research in computational design and experimental studies on dynamic loading scenarios. The recent development of numerical methods allowed for good assessment of full-scale problems for such complex loadings as the explosion, projectile impacts and other high-speed scenarios. Moreover, arising of many new computational approaches allowed for validation of actual experiments for almost all dynamic phenomena, i.e., computational analysis and experimental studies of solids implemented in safety and biomechanics areas subjected to various complex loadings. The contributions will be focused on the following topics:

- Constitutive modelling under complex loading conditions.
- Protective structures against impact and blast loadings.
- Safety aspects under different dynamic loading conditions.
- Experimental research as well as numerical studies on an explosion phenomenon and interaction with the surrounding.

The Mini-Symposium is intended to present challenges and achievements in applications of theoretical, computational and experimental mechanics focused on blast resistant structures, biomechanical and safety issues.