

THE MATERIAL POINT METHOD – RECENT ADVANCES

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Key words: Material Point Method (MPM), Multi-phase Interaction, Failure evolution

ABSTRACT

To effectively simulate the multi-phase (solid-fluid-gas or hard-soft material) interactions involving large deformations and failure evolution, the material point method (MPM) has evolved for nearly three decades since the first research project on it was funded by Sandia National Laboratories in the early 1990 [Sulsky et al., 1994]. As a continuum-based particle method, the MPM has been applied to many areas of Simulation-based Engineering Science [Zhang et al., 2016]. The aim of this mini-symposium is to provide an exposition of the current state of the art on the evolution of the MPM. We particularly welcome contributions highlighting the integration of modeling, simulations, and experiments with industrial applications via the advanced MPM.

REFERENCES

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