

SELF-A 2D ALE HYDROCODE FOR MULTI-FLUID FLOWS

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ABSTRACT. In this talk, we will introduce a new hydrocode for multi-fluid flow simulation. The hydrocode is based on ALE frame. At the interface, we use Lagrangian coordinates to keep high resolution and inside the domain, we introduce velocity of the grid to keep the mesh at good quality. We use finite elements method to discretize momentum equations and finite volume method to discretize other equation. Finally, we will present some numerical results on benchmark models.

This is joint work with Junbo Cheng, Yibin Chen, Guiping Zhao.