

Poster 2

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## Implementation of a turbulent mix model in a 2D ALE code

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The addition of a turbulent mix model to a two dimensional finite element ALE hydrocode, CORVUS, is discussed. Use is made of the existing mixed-cell data structure in the ALE package to facilitate the inclusion of the model.

This first stage of the model is based on the multiphase flow equations, and is a simplified form of the model implemented by Youngs in a 2D Eulerian code. This is applicable to simple Rayleigh-Taylor and Richtmyer-Meshkov instabilities and some results are presented.

A simple buoyancy-drag model is used to calculate the early stages of the instability growth at internal nodes, and this is used to initialise the turbulent mix model calculation.