

Youngs, D. L.

Time-dependent multi-material flow with large fluid distortion. (English) Zbl 0537.76071

Numerical methods for fluid dynamics, Proc. Conf., Reading/U.K. 1982, 273-285 (1982).

[For the entire collection see [Zbl 0498.00008](#).]

Fluid flow problems in which interfaces between different materials are present are most easily modelled by using a Lagrangian mesh. However, in many 2-D applications distortion of the Lagrangian mesh makes such a method impractical. This paper describes a 2-D, time-dependent, compressible, finite difference Eulerian method which has been developed to simulate such problems.

MSC:

76T99 Multiphase and multicomponent flows

76M99 Basic methods in fluid mechanics

76R99 Diffusion and convection

Cited in **202** Documents

Keywords:

Lagrangian mesh distortion; interfaces between different materials; 2-D applications; time-dependent, compressible, finite difference Eulerian method