Poster 1 Anuchina et al.

Simulation by the Mah-3 code of the interfaces using an mixed cells and markers

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The paper presents a 3D method of describing interface with unstructured mesh of markers, which is implemented in the MAH-3 code (Anuchina *et al*. (1997)).

2D and 3D test problems set-up and computed data are presented for comparison two methods: method of material mixture concentrations and markers method.

Algorithms of marker-based control the interface location in time on an Eulerian mesh and influence on calculation of convective fluids flows.

The numerical results show, that the proposed markers method allows the robust calculation of the interface location and having less error.

References

Anuchina, N.N., Gordeyhuck, V.A., Es'kov, N.S., Ilyutina, O.S., Kozyrev, O.M. & Volkov, V.I. 1997 Three-Dimensional Numerical Simulation of Rayleigh-Taylor Instability by MAH-3 Code; In Proc. of 6th International Workshop on The Physics of Compressible Turbulent Mixing, Institut Universitaire des Systemes Thermiques Industriels, Marseille, France, 24-28.