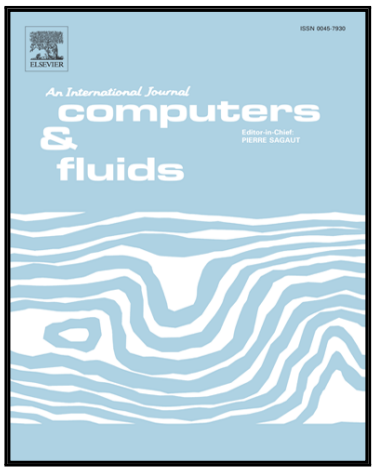
Accepted Manuscript



A coupled ALE-AMR method for shock hydrodynamics

J. Waltz, J. Bakosi

PII: S0045-7930(18)30126-9
DOI: 10.1016/j.compfluid.2018.03.021
Reference: CAF 3782

To appear in: *Computers and Fluids*

Received date: 6 December 2016
Revised date: 29 January 2018
Accepted date: 2 March 2018

Please cite this article as: J. Waltz, J. Bakosi, A coupled ALE-AMR method for shock hydrodynamics, *Computers and Fluids* (2018), doi: 10.1016/j.compfluid.2018.03.021

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- We present a coupled ALE-AMR method for shock hydrodynamics on 3D unstructured grids
- Our method combines an unsplit ALE formulation with hierarchical refinement of tetrahedral cells
- Coupled ALE-AMR solutions are shown to converge to both uniform fine mesh solutions and analytic solutions Speed-ups over uniform fine mesh solutions of 5-10X for a given level of error are achieved

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/7156270

Download Persian Version:

https://daneshyari.com/article/7156270

Daneshyari.com