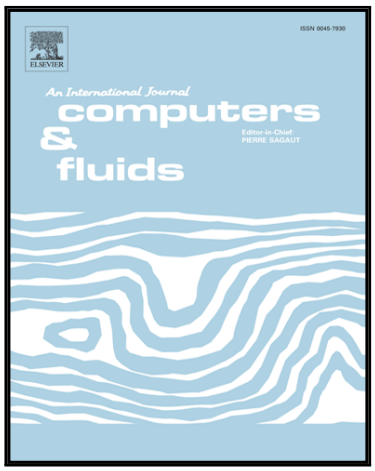

A high-order cell-centered Lagrangian scheme for one-dimensional elastic-plastic problems

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PII: S0045-7930(15)00305-9
DOI: 10.1016/j.compfluid.2015.08.029
Reference: CAF 2995

To appear in: *Computers and Fluids*

Received date: 21 January 2015
Revised date: 24 June 2015
Accepted date: 31 August 2015

Please cite this article as: Jun-Bo Cheng, Eleuterio F. Toro, Song Jiang, Ming Yu, Weijun Tang, A high-order cell-centered Lagrangian scheme for one-dimensional elastic-plastic problems, *Computers and Fluids* (2015), doi: 10.1016/j.compfluid.2015.08.029

Highlights

- Develop a two-rarefaction Riemann solver (TRRSE) for 1D elastic-plastic flows.
- Propose high-order cell-centered Lagrangian schemes for 1D elastic-plastic problems.
- Show how to limit the time step to keep our high-order scheme positivity-preserving.
- Our 3rd-order scheme seems to be convergent, stable and essentially non-oscillatory.
- TRRSE performs better than the node Riemann solvers in resolving rarefaction waves.