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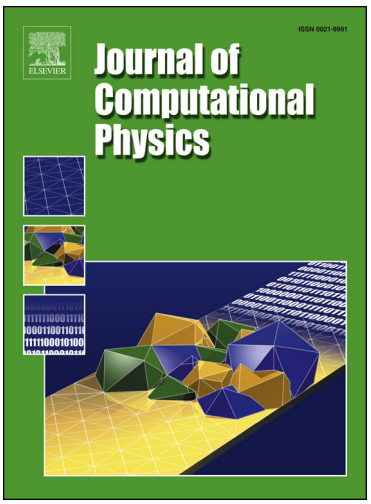

A unified high-order Eulerian method for continuum simulations of fluid flow and of elastic–plastic deformations in solids

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Highlights

- A high-order method is proposed for tracking elastic–plastic deformations in solids.
- Compressible fluid flows can be treated with the same formulation.
- Shocks and contact discontinuities captured using a modified LAD scheme.
- The curl/compatibility constraint is preserved with eighth order accuracy.
- Multi-scale shock-entropy tests demonstrate high numerical resolution of the scheme.