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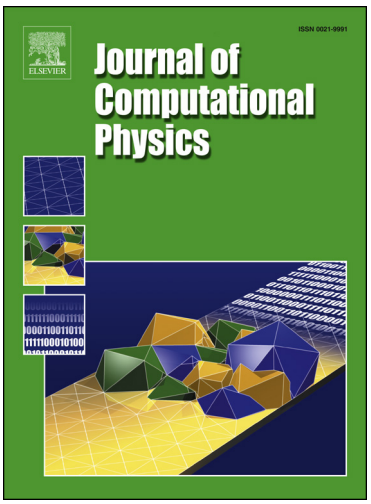

A Riemann problem based method for solving compressible and incompressible flows

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Highlights

- Two-medium flow including compressible and incompressible regions is investigated.
- An incompressible discontinuous Galerkin method with nonuniform time step is derived.
- A coupled compressible and incompressible Riemann problem is proposed.
- Reasonable results are obtained for strong shock wave formed in compressible flow.

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