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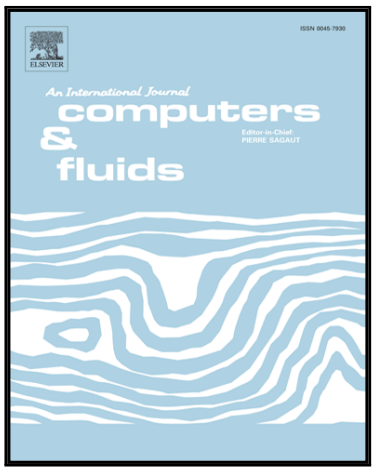

Limiter-free discontinuity-capturing scheme for compressible gas dynamics with reactive fronts

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Highlights

- A novel reconstruction scheme without limiters is designed for compressible flow.
- Simplified boundary variation diminishing algorithm is devised.
- The resolution around discontinuities is significantly improved.
- Spurious waves can be prevented for stiff detonation problems.
- The new scheme is algorithmically simple.

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