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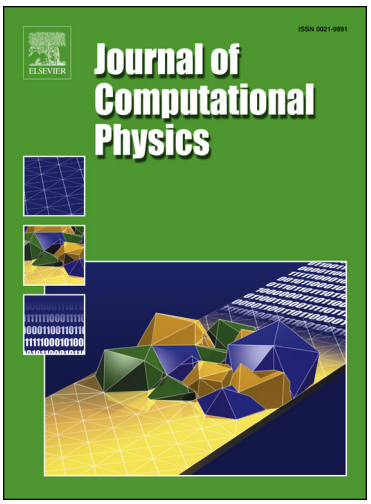

Shock capturing for discontinuous Galerkin methods with application to predicting heat transfer in hypersonic flows

Eric J. Ching, Yu Lv, Peter Gnoffo, Michael Barnhardt, Matthias Ihme

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Highlights

- Developed a robust shock capturing method for DG schemes.
- Intraelement variations are used for shock detection.
- Smooth artificial viscosity is used for shock stabilization.
- Benchmarked heating predictions against FV solvers in hypersonic viscous flows.
- DG predictions exhibit reduced sensitivity to mesh topology and flux functions.