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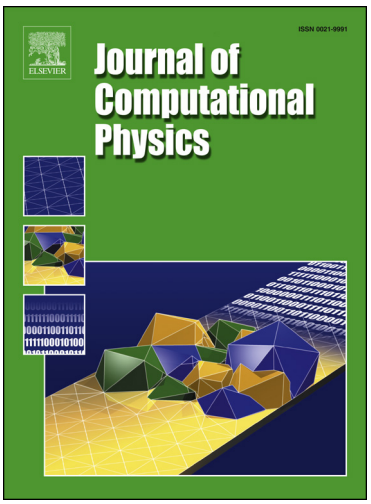

The hybridized Discontinuous Galerkin method for Implicit Large-Eddy Simulation of transitional turbulent flows

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Highlights

- We present a high-order Implicit Large-Eddy Simulation approach for simulating transitional turbulent flows.
- The approach consists of a hybridized Discontinuous Galerkin method and a parallel Newton–Krylov–Schwarz solver.
- Numerical results show rapid convergence and excellent agreement with experimental data for Reynolds numbers up to 460,000.
- The boundary layer structure and transition mechanism for different flow conditions are investigated.