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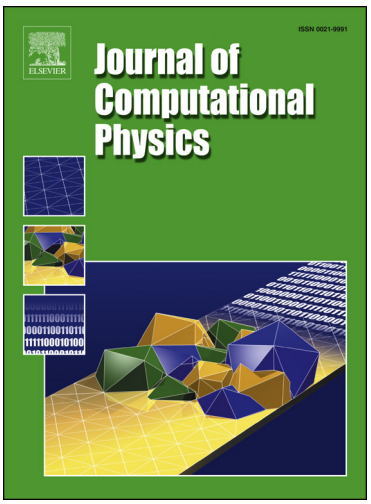

High order spectral difference lattice Boltzmann method for incompressible hydrodynamics

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Highlights

- High order spectral difference lattice Boltzmann method (SD-LBM) is proposed.
- SD-LBM can be implemented on arbitrary unstructured quadrilateral meshes.
- SD-LBM almost holds all advantages of the LBM, but is more flexible.
- SD-LBM is simple and accurate due to only first order derivatives involved in LBE.

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