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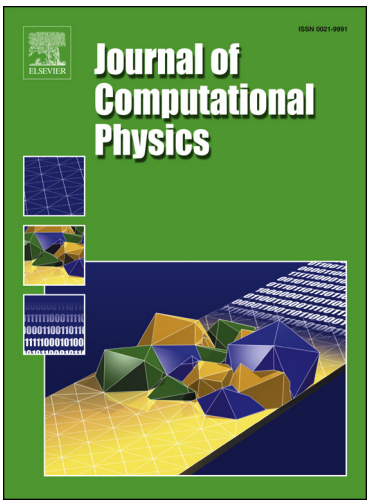

Modified Particle Method with integral Navier–Stokes formulation for incompressible flows

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Highlights

- A Modified Particle Method based on the first-order Taylor Expansion is proposed.
- The classical Navier-Stokes Equation of the particle-discretized system is reformulated in an integral form, which naturally fulfills the linear momentum conservation.
- A stable computational strategy is proposed to not only achieve better particle distribution and smooth fields, but also accurately track the free surfaces.