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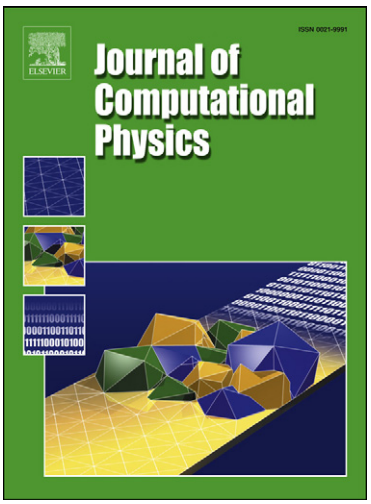

An unstructured solver for simulations of deformable particles in flows at arbitrary Reynolds numbers

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Highlights

- We model deformable particles under flows at arbitrary Reynolds numbers.
- The immersed boundary method is adapted to an unstructured finite-volume solver.
- A specific algorithm is introduced to ensure volume conservation of particles.
- Reference 2D test cases are reported to enable quantitative validation in 2D.
- The method is robust in a configuration typical of industrial cytometers.