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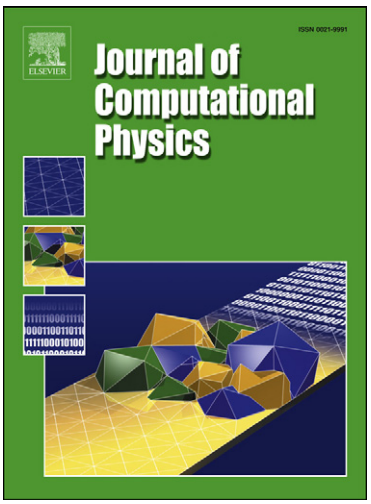

An incompressible smoothed particle hydrodynamics method for the motion of rigid bodies in fluids

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Highlights

- An ISPH scheme for the motion of rigid bodies in Newtonian fluids is presented.
- The scheme relies on combined use of rigidity constraints and viscous penalty.
- A viscosity ratio of 100 and weighted harmonic averaging was found satisfactory.
- The proposed scheme is easy to implement and circumvents explicit boundary conditions.
- The scheme is successfully tested for linear and rotational motion.

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