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Coupling of Smoothed Particle Hydrodynamics with Finite Volume method for free-surface flows

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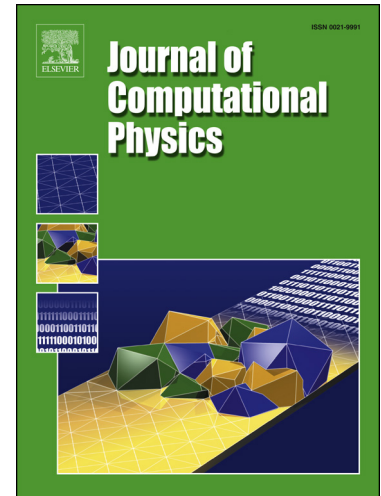
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Highlights

- A new algorithm for coupling meshless Lagrangian methods and Eulerian grid-based methods is proposed.
- A detailed validation using Smoothed Particle Hydrodynamics (SPH) and Finite Volume (FV) solvers is provided.
- To our knowledge this is the first time that a coupling like the present one is proposed, implemented and validated.
- We highlight how the intrinsic characteristics of both solvers can be exploited to efficiently and accurately resolve complex free-surface flows.
- The reported results clearly prove that the coupling strategy is convenient from the point of view of both accuracy and computing time.

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