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A hybridized discontinuous Galerkin framework for high-order particle-mesh operator splitting of the incompressible Navier-Stokes equations

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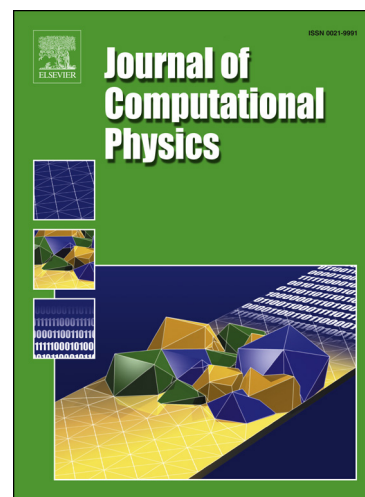
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Highlights

- Presents a particle-mesh operator splitting for the incompressible N-S equations.
- Proposes an HDG framework as a particularly attractive approach for doing so.
- The HDG framework enables an efficient and generic particle-mesh interaction.
- Excellent local mass conservation warrants a uniform particle distribution.
- The method shows optimal spatial accuracy and second-order time accuracy.

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