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A new class of moving-least-squares WENO-SPH schemes

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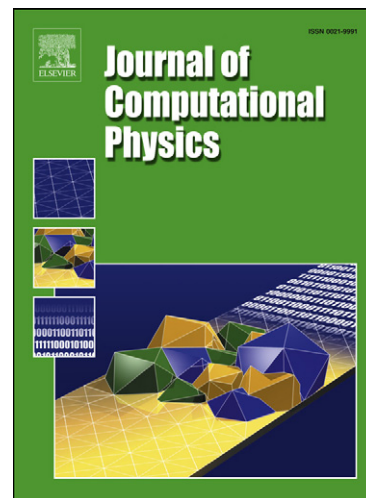
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## Highlights

- introduction of a new high order moving-least squares WENO reconstruction into SPH
- presentation and application of the algorithm in multiple space dimensions
- stabilization of the scheme via approximate Riemann solvers, no artificial viscosity
- significantly improved accuracy and robustness compared to existing SPH schemes
- much less sensitivity to particle disorder compared to standard SPH

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