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A free energy-based surface tension force model for simulation of multiphase flows by level-set method

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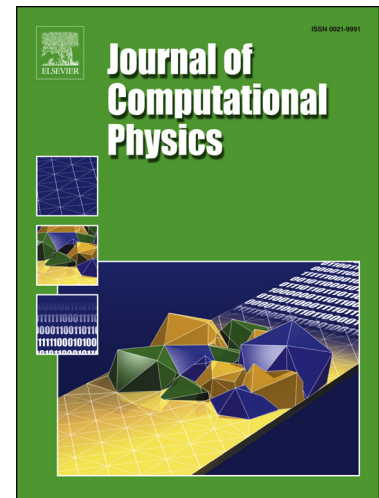
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Highlights

- A free energy-based surface tension force (FESF) model is proposed for simulation of multiphase flows by level set method.
- The proposed model computes the surface tension force by an explicit form.
- The proposed model outperforms the existing models in terms of accuracy, stability, convergence speed and mass conservation.
- The proposed model can effectively simulate multiphase flows.

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