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Mathematical modeling and numerical simulation of two-phase flows using Fourier pseudospectral and front-tracking methods: the proposition of a new method

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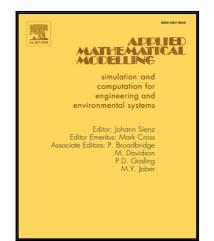
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Highlights

- Formulation and implementation of the Fourier pseudospectral method with:
- Coupling of the immersed boundary methods to solve non-periodic problems;
- Coupling of the Front-Tracking method for numerical simulation of two phase flow;
- Solution to problems involving rising bubble using this new method;
- Comparison of numerical results with those from other methods.

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