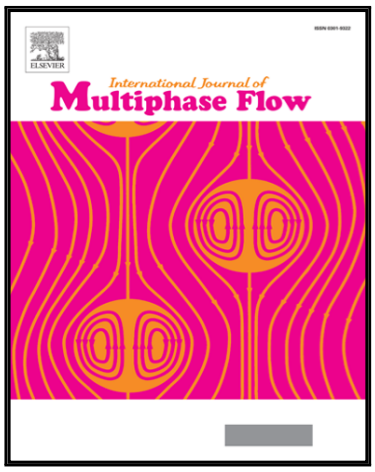

Thermal two-phase flow with a phase-field method

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Highlights

- This is the first study of applying the least-squares formulation for the thermal Navier-Stokes-Korteweg system.

- High order approximation with Hermite polynomials is used to improve the approximation accuracy of solution at the phase interface.

- Our solver is verified with the method of manufactured solution and validated with two numerical examples – evaporation/condensation of a single bubble and thermocapillary convection.