

PHASE-FIELD SIMULATION OF ICE MELTING

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ABSTRACT

In this study, we present a mathematical model for the melting of ice using a phase-field method. In the phase-field model for the crystal growth, we subtract the anisotropic term and add a new term related to melting, which is derived from the evaporation phenomenon. We use an operator splitting method and the multigrid method. Numerical simulations are conducted to verify whether the proposed model accords with physical phenomenon.

REFERENCES

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