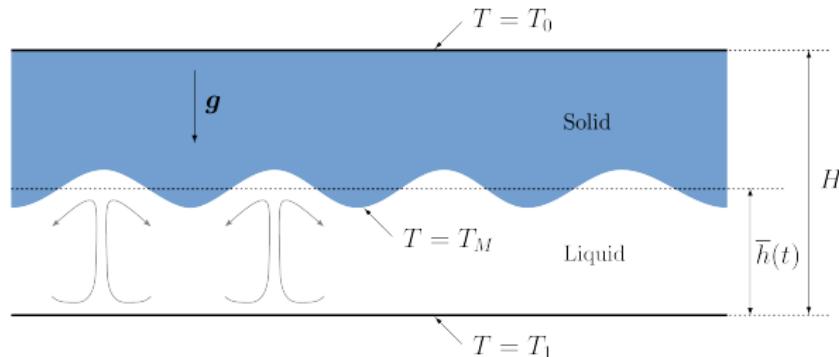


# Rayleigh-Bénard convection interacting with a melting boundary

J. Purseed, B. Favier and L. Duchemin

Aix-Marseille Univ, CNRS, École Centrale Marseille, IRPHE, Marseille, France.

Rencontre du Non-Linéaire, 2018



- ▶ Study of the evolution of a melting boundary between solid and liquid phases.
- ▶ Classical Rayleigh-Bénard with a non-trivial Stefan boundary condition at the solid/liquid interface.
- ▶ Heat equation and Navier-Stokes equations (under Boussinesq approximation) are solved numerically using a phase-field approach.

## Results for an isothermal solid, $T_M \approx T_0$

