



$$\begin{cases} \nabla \cdot \boldsymbol{\sigma} + \boldsymbol{\tau}_b = \rho_i g H \nabla s, & \text{in } \Omega \\ \mathbf{n} \cdot \boldsymbol{\sigma} = (\bar{p}_i - \bar{p}_w) \mathbf{n} & \text{on } \Gamma \end{cases}$$

$$\mathcal{L}_\varphi = w_\Omega \varepsilon_\Omega + w_\Gamma \varepsilon_\Gamma$$

Physics