

Boundary Conditions

$$\delta c = \delta \phi = 0$$

$$\mathbf{u} \cdot \mathbf{n} = 0$$

$$\{-p\mathbf{I} + \eta[\nabla\mathbf{u} + (\nabla\mathbf{u})^T]\}\mathbf{n} = 0$$

$$\mathbf{n} \cdot \nabla \phi_0 = 0$$

$$\begin{aligned} -\mathbf{n} \cdot \nabla \delta c / c_0 &= \\ &= \text{Du} \, d\nabla_s^2(\phi_0 / \phi_{ther}) \end{aligned}$$

$$\mathbf{n} \cdot \nabla \langle \delta \phi \rangle = 0$$

$$\langle \mathbf{u}_{\text{slip}} \rangle = \frac{\varepsilon}{\eta} \zeta_0 \langle \nabla_s \delta \phi \rangle + \frac{\varepsilon}{\eta} \langle \delta \zeta \nabla_s \phi_0 \rangle$$

$$\nabla^2 \phi_0 = 0$$

$$D\nabla^2 \delta c = \partial_t \delta c$$

$$\nabla^2 \langle \delta \phi \rangle = -\langle \nabla \phi_0 \cdot \nabla \delta c / c_0 \rangle$$

Measurement Area

$$\eta \nabla^2 \mathbf{u} - \nabla p = 0$$

$$\nabla \cdot \mathbf{u} = 0$$