

$$\rho \ll \rho_0$$

$$z = 0$$

$$\vec{u}_h = \begin{pmatrix} u \\ v \end{pmatrix}$$

$$h(x, y, t)$$

$$\rho = \rho_0 = \text{const}$$

$$z = -h(x, y, t)$$

$$\rho = \rho_1 = \text{const}$$