

$$\left\{ \begin{array}{l} \frac{\boldsymbol{u}^* - \boldsymbol{u}^n}{\Delta t} = \boldsymbol{RHS}^n \\ \frac{\boldsymbol{u}^{n+1} - \boldsymbol{u}^*}{\Delta t} = - \frac{\nabla p^{n+1}}{\rho} \\ \nabla \cdot \boldsymbol{u}^{n+1} = 0 \end{array} \right.$$