Hasegawa-Wakatani

$$\frac{\partial \zeta}{\partial t} + \{\phi, \zeta\} = \alpha(\tilde{\phi} - \tilde{n}) - \mu \nabla^4 \zeta$$

$$\frac{\partial n}{\partial t} + \{\phi, n\} = \alpha(\tilde{\phi} - \tilde{n}) - \kappa \frac{\partial \phi}{\partial y} - \mu \nabla^4 n$$

BOUT++

SmartSim

TensorFlow