

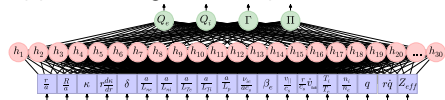
# OMFIT integrated modeling framework enables new physics studies, such as transport modeling based on Neural Networks (NN) (TH/P6-11)

OMFIT is a comprehensive integrated modeling framework, designed to:

- facilitate experiments interpretation
- enable theory validation
- support the design of new experiments

Used by a growing number of users for broad range of applications including equilibrium, stability, transport, heating and current drive.

Application eg.: NN transport model



- Same dimensionless input parameters as first-principles models
- Only assumes that transport is a local phenomenon:  $\rho/L \ll 1$

**OMFIT** enabled workflows:

- For training NN on massive volume of aggregated DIII-D experimental data
- To perform efficient time-dependent transport/equilibrium simulations based on NN transport model

