

# Simulator

## Input Deck

Geometry

Initial Conditions

Boundary Conditions

Select sub-models

Other Controllable Inputs



## TH System Code

Conservation Equations

$$b(\mathbf{u}, \mathbf{x}_c, \{\mathcal{M}_i(\mathbf{x}_c, \mathbf{x}_m, \mathbf{u})\}) = 0$$



Closure Laws, sub-models, etc.

$$\{\mathcal{M}_i(\mathbf{x}_c, \mathbf{x}_m, \mathbf{u}); i > 0\}$$



$\mathbf{u}(\mathbf{r}, t)$