

## MOOSE Project Part 3

- Utilizing the systems from Part 1 & 2, combine heat conduction and tensor mechanics in a fully thermo-mechanical simulation to get the stresses due to thermal expansion in the fuel
- 1) Assume a constant thermal conductivity
- 2) Assume a temperature dependent thermal conductivity
- Can neglect any potential effects of contact, can reduce boundary conditions to a fuel surface temp
- Constant, axially varying, LHR
- [https://mooseframework.inl.gov/getting\\_started/examples\\_and\\_tutorials/index.html](https://mooseframework.inl.gov/getting_started/examples_and_tutorials/index.html)
  - Under “Physics Module Examples and Tutorials” can consult the combined, heat conduction, and tensor mechanics modules