Validation & Extrapolation

Cristian Rabiti
Nuclear Engineering
Idaho National Laboratory
## Validation & Extrapolation

### National Need and INL Focus Areas
- INL has a large investment in high fidelity codes
- INL has a legacy of experimental data
- INL is building more experimental capabilities
- Validation of non steady results is a challenge (fuel, CFD, etc.)
- Harvesting of high fidelity is possible only if we know how from experiment we can assess the uncertainty in the design

### Potential University Collaboration Areas
- Large scale UQ methodology testing
- Validation of high fidelity codes for stochastic phenomena
- Development of extrapolation methodologies
- Large scale testing of extrapolation methodologies
- Testing via calibration using complete/incomplete test set
Validation & Extrapolation

Potential Funding Sources

- DOE
  - NEAMS
  - CASL
  - LWRS
- NNSA
- DOD
- Industry

Potential Outcomes

- Workshop
- Proposals to DOE
- Application to the methodology directly to industrial problem
- NRC WFO