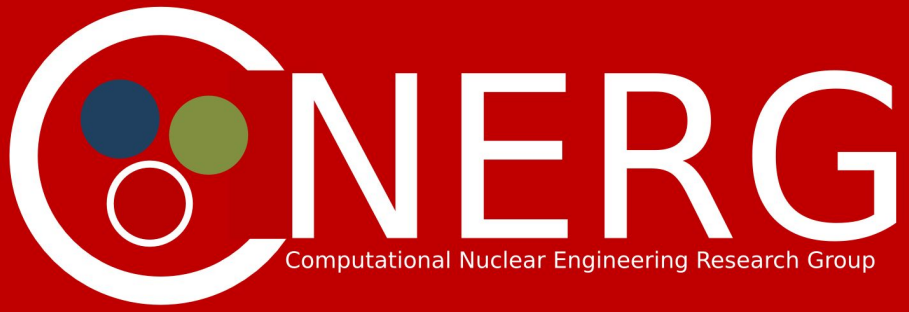
Session Introduction

Scenario Studies and Non-Proliferation

TWoFCS3 - July 11, 2018



Workshop Sessions

Economic & Interdisciplinary Applications

Confidence & Robustness

Scenario Studies

Fuel Cycle Simulators
& Data Treatment

Reactor Models

Workshop Sessions

Economic & Interdisciplinary Applications

Inverse & Search Studies

Confidence & Robustness

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Quantities and Qualities

- Primary results
  - Material inventories
  - Isotopic compositions

- Implication of value/cost of some material of nuclide
  - Actual value/cost is not important
  - Increasing/decreasing or maximizing/minimizing is common theme

Non-proliferation Applications

- Largely a focus on accumulation of fissile material
- Some possible differences
  - Time scales may be important
  - Precision on isotopic inventories
  - Nuclides of interest
- Synthetic data for testing/ demonstrating novel safeguards & detection concepts

Session Summary

Non-Proliferation and Treaty Verification

- Modeling off-normal cascade operations (Wilson)
- Nuclear diversion scenario within the functional uncertainties (Mouginot)
- Nuclear archeology: Reconstructing past fissile material production using measurements and fuel cycle simulations (Göttsche)
- Integration Modeling to Decipher a Fuel Cycle (Morales Rosado)

Session Summary

Scenario Studies

- Fuel Cycle Systems Scenario Analysis: Recycling LWR Plutonium in Thorium Fueled PT-HWRs (Wojtaszek)
- Impact of Technology Characteristics on Transition to a Fast Reactor Fleet (Hoffman)
- On the Use of Plutonium Burning Fast Reactors to Reduce PWR Irradiated Assemblies' Stockpile (Kooyman)