



Closing Remarks and Action Items

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Multi-physics Model Validation Workshop

NCSU, Raleigh

June 27-29, 2017



Workshop Statistics

- Workshop “Multi-physics Model Validation” has been organized by the NCSU’s Department of Nuclear Engineering, with support from the Idaho National Laboratory through its National University Consortium (INL-NUC) program and Nuclear Energy Knowledge and Validation Center (NEKVAC) program.
- In total 63 participants from industry, regulatory agencies, national labs, naval labs, research institutions, consulting companies, and academia from different countries
- 6 focused sessions with 36 presentations, and 6 panel discussions and 9 posters in a poster session reflected the work performed within:
 - ✓ Different DOE programs: CASL, NEAMS, TREAT and LWRS;
 - ✓ NRC and IRSN;
 - ✓ OECD/NEA expert groups;
 - ✓ National labs, academia, and other organizations.

List of Actions

- Certificates for participation in the workshop - complete
- Placing workshop's presentations at web-site for downloading – July 7, 2017
- Summary of the workshop with recommendation for cooperation activities - to be sent to participants for feedback by July 15, 2017
- Paper based on technical presentations and discussions at the workshop focused on lessons learned about emerging needs, technical challenges and opportunities for R&D and collaboration in validation and uncertainty quantification of multi-physics models in nuclear reactor and nuclear energy applications
- Workshop materials, and summary will be submitted to the INL (and will be archived on the NE-KAMS database) and may lead to follow on activities

Closing Remarks on Current and Future Collaboration

- Currently activities on multi-physics validation are performed on different levels:
 - ✓ within organizations;
 - ✓ within multi-organizational joint activities and programs;
 - ✓ Within international programs such as IAEA CRPs and NEA/OECD expert groups and benchmarks;
- Concept for national knowledge and validation centers (In USA NEKVAC – possible transfer to GAIN);
- Supporting joint MS and PhD research and theses in this area;
- Annual workshops on multi-physics validation that will share/inform/educate modern code developers and experimenters in state-of-the-art on how to validate advanced complex simulations.