PHYSOR 2010

Advances in Reactor Physics to Power the Nuclear Renaissance

Sheraton Station Square Hotel
Pittsburgh, Pennsylvania, USA
May 9-14, 2010

www.physor2010.org

PHYSOR 2010 aims to provide a platform for international experts to exchange ideas and latest developments in reactor physics, mechanical and material engineering and related nuclear technologies in light of the nuclear renaissance.

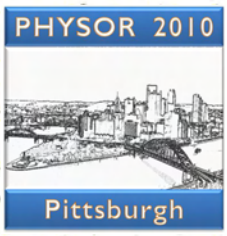
This conference is sponsored by the American Nuclear Society (ANS) Reactor Physics Division and co-sponsored by the ANS Mathematics and Computation Division, the American Society of Mechanical Engineers (ASME), OECD Nuclear Energy Agency (NEA), the Mexican Nuclear Society (SNM), and the Atomic Energy Society of Japan (AESJ). The meeting organization is represented by all segments of the nuclear industry: vendors, utilities, DOE laboratories and universities.

Important Dates

March 2009	First Call for Papers
September 2009	Submission of Full Papers
December 2009	Author Notification of Acceptance
February 2010	Final Paper Deadline
March 2010	Early Registration Deadline
May 2010	PHYSOR 2010 Topical Meeting

For More Information

www.physor2010.org



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Technical Topics and Sessions

- ***Nuclear Data*:** Measurements, Cross Section Evaluations & Libraries, Testing & Validation
- ***Deterministic Transport Theory*:** Deterministic Methods, Advances in Neutron Flux and Fluence Calculational Methods
- ***Nuclear Criticality Safety*:** Burnup Credit, Benchmarks, Spent Fuel Disposition
- ***Reactor Analysis and Optimization*:** Analysis Methods, Lattice Physics Methods & Validation, Homogenization & Nodal Methods, Pin Power Reconstruction, 3-D Depletion using Transport Methods, In-Core Fuel Management and Optimization, Core Monitoring, High-Performance Computing, Special Session in Memory of Rudi Stamm'ler
- ***Integral Experiments/Analysis and Facilities for Safety Research*:** Reactor Physics Benchmarks, Capabilities of Experimental Facilities
- ***Fuel, Materials and Mechanical Analysis*:** Fuel & Materials Behavior, Fuel Performance Models, Challenges to Extend Burnup and Enrichment Limits
- ***Radiation Applications and Nuclear Safeguards*:** Radiation Protection, Medical Physics Applications, Computational Medical Physics, Nuclear Techniques for Non-Proliferation, Nuclear Techniques for Homeland Security
- ***Transient and Safety Analysis*:** 3D Methods, Multi-Physics Reactor Simulations, Developments in Probabilistic Risk Assessments, Severe Accident Analysis and Mitigation
- ***Monte Carlo Methods***
- ***Research Reactors and Spallation Sources*:** Accelerator and Spallation Physics, Applications
- ***Reactor Design and Operation*:** Light-Water Reactor Design & Analysis, Heavy-Water Reactor Design & Analysis, Fast Reactor Design & Analysis, Gas-Cooled Reactor Design & Analysis, Advanced Reactor Designs, Reactor Operation and Control, Space Nuclear Power& Propulsion
- ***Verification, Validation and Uncertainty Analysis*:** Reactor Physics Standards, Verification & Validation Methods, Sensitivity/Uncertainty Analysis
- ***Nuclear Fuel Cycle*:** Physics, Actinide Management, Strategies to Close the Fuel Cycle, Developments in Enrichment and Reprocessing Facilities
- ***Nuclear Power and Sustainable Development*:** Process Heat and Hydrogen Generation, Reactor Physics Education & Training Needs (Panel) - Larry Foulke (Pitt), Infrastructure Needs to Support the Nuclear Renaissance

Proposed Workshops

- PARCS Code System, University of Michigan
- SCALE Code System, ORNL
- MCNP, LANL
- APOLLO2/CRONOS and FLICA/NEPTUN Code Systems, CEA, France
- Transport Methods Overview, International Experts
- Reactor Physics and Design of the Next Build Reactors (AP1000, ABWR, PBMR), Vendor Experts

Technical Tours

- Beaver Valley Power Station
- AP1000 Control Room & Westinghouse Waltz Mill Site
- Penn State University Breazeale Nuclear Reactor

Special Events

- Welcome Reception
- Banquet with Keynote Speeches
- Hosted Lunches with Speakers
- River Cruise

Guest Program Tours

- Phipps Conservatory & University of Pittsburgh Nationality Rooms
- Frick Art & Historical Center
- Fallingwater & Kentuck Knob

Conference Hotel

The Sheraton Station Square Hotel, located on the riverfront, is just steps away from downtown retail centers and adjacent to over 30 shops, restaurants, and nightclubs at the renowned Station Square.

www.starwoodhotels.com/sheraton