

#### **International Topical Meeting on Probabilistic Safety Assessment and Analysis** September 22-26, 2013 • Marriott Columbia • Columbia, South Carolina, USA CALL FOR PAPERS Summaries Due 1 Feb. '13 4 Mar. '13 Authors Notification

PSA 2013 is a biennial international technical forum for communication of major probabilistic risk and safety topics worldwide, including issues, methods, applications, insights, policy and risk-informed regulation experience. The PSA 2013 meeting will be of interest to traditional applications including nuclear reactor facilities, nonreactor installations, processing, decontamination & decommissioning, and storage, as well as other nontraditional areas where probabilistic safety approaches are applied. The meeting will continue to follow lessons learned from the Fukushima Dai-ichi event through the perspectives of Japanese and international representatives. Invited and contributed papers, as well as student papers will be given. The organizers plan traditional oral paper and panel sessions well as a student poster session.

Authors should submit summaries of between 300 and 600 words in English via the conference website (http://psa2013.org). The summary should clearly state the objectives, methodology, results and conclusion of the paper.

PSA 2013 Proceedings will be issued in CD-ROM format.

### Planned Plenary Panel Sessions

- Opening & Closing Plenary Sessions
- PRA Implications of Fukushima Dai-ichi
- Industry Perspectives
- Risk-Informed Trends in Regulation
- Progress in Risk Standards Development and Use

#### Suggested Paper Topics

- Accident Analysis
  - o Severe Accident methods and insights o Extended sequences
- Advanced Nuclear Reactor Systems
- Advances in Information Technology Supporting Risk-Informed Decision-Making Aging Management ASME/ANS Standards and Peer Reviews

- o Level 2/Level 3 PRA
- o Low Power/Shutdown PRA o Non-LWR
- o Fire PRA
- o Advanced Reactor
- Common Cause Failures
- Computer Code Development and Methods
- Configuration Risk Management Cyber Risk
- Databases
  - o Component Reliability
  - o Human Error Probability
- Digital Instrumentation & Control
- Dynamic PRA
- Emergency Preparedness and Response
- Environmental Impact Analysis
- **External Events** 
  - o Flooding Events o Fire Events

  - o Natural Phenomena Hazards (Tornado, Hurricane, High Wind) o Seismic Events
- o Tsunamis
- Fukushima Event Impacts & Lessons Learned o Multi-unit Risk Applications
- o Emergency Preparedness Insights
- o Multi-site Risk Management
- Flooding PRA
- Full-Scope Level 3 PRA Advances
- Human Reliability and Human Factors
- IAEA, IEC, & IEEE Nuclear PRA Standards Interface Between PRA and the Deterministic Safety
- Small Modular Reactors
- SOARCA Program Insights to PRAs
- Software Reliability and Data Analysis
- Small Modular Reactors

- Standardized Plant Analysis Risk (SPAR) Models
- Level 1 PRA Developments
- Internal Fire Risk
- o Implementation of NFPA 805
- Level 2 & 3 PRA Developments Low-Power and Shutdown PRA
- Mitigating Systems Performance Index (MSPI) Issues
- Space Nuclear Risk Applications
- Natural Hazard Phenomena and External Events
- Non-LWR PRA
- Non-Nuclear PRA
- Next-Generation NPPs
- Nuclear Nonreactor Methods and PRA Applications o Beyond Design Basis Events
- o Fuel Cycle and Waste Processing Passive System Safety
- Plant Security
- Proliferation Risk
- PRA Human Resource Needs
- PRA Training & Education
- Quantitative Risk Analysis (QRA) in DOE Facilities Interface with Safety Basis (Deterministic) Analyses
  Chemical and Combustible Gas Issues
- Reliability Centered Maintenance
- o Reliability, Accessibility, Maintainability and Inspectability (RAMI) Pro arams

Full Papers Due

Final Full Papers Due

Sponsored by NISD

Nuclear Installations Safety Division

UMBIA

- **Relicensing of Current Plants**
- o Severe Accident Mitigation Alternatives (SAMA) Analysis
- Risk-Informing Regulation and Licensing
- **Risk Management**
- o PRA knowledge management Risk Metrics and Safety Goals
- **Risk Perception and Communication**
- Safety Culture and Organizational Factors
- Safety Margins and PSA
- Significance Determination Process (SDP) Issues
- Seismic PSA and Applications o Generic Issue 199
- o Seismic Margin Analysis
- Structural Reliability Methods
- Transportation Risks
- Waste Management & Decommissioning Status

## Partial Conference Organization

Honorary Chair General Chair Gerald Loignon Tech. Program Chair Robert Bari Assistant Tech. **Program Chair** 

Shunsuke Kondo Japan Atomic Energy Commission South Carolina Electric & Gas **Brookhaven National Laboratory** 

3 May `13 19 Jun. `13

Kevin O'Kula URS Safety Management Solutions

http://psa2013.org



International Topical Meeting on Probabilistic Safety Assessment and Analysis September 22-26, 2013 • Marriott Columbia • Columbia, South Carolina, USA



1 Feb. `13
4 Mar. '13
3 May `13
19 Jun. `13

# Technical Program Committee

Charles Ader **Bulent Alpay** Tunc Aldemir Paul J. Amico Nathan Bixler Biff Bradley Mel R. Buckner Robert J. Budnitz Tony Cappucci Michael Cheok Dennis Damon Vinh Dang Matt Denman Donald Dube Katsumi Ebisiawa Phillip G. Ellison Steven J. Farnham II George F. Flanagan Karl Fleming C.J. Fond Michael V. Frank Jeff Gabor Ray Gallucci Felix Gonzalez Rick Grantom Dennis Henneke Kohei Hisamochi Michael J. Hitchler Toshimitsu Homma Amy Hull Brian Johnson David H. Johnson Leo Kachnik Travis Knight Zoltan Kovacs Irina Kuzima

U.S. Nuclear Regulatory Commission GE Hitachi Ohio State University SAIC Sandia National Laboratories Nuclear Energy Institute Consultant & Adjunct Professor, University of S. Carolina Lawrence Berkeley National Laboratory SRS and URS (retired) U.S. Nuclear Regulatory Commission U.S. Nuclear Regulatory Commission Paul Scherrer Institute Sandia National Laboratories U.S. Nuclear Regulatory Commission JNES - Japan GE-Hitachi ARES Corporation Oak Ridge National Laboratory KNF Consulting Services LLC U.S. Nuclear Regulatory Commission Sellafield Sites Washington Group, United Kingdom **ERIN Engineering** U.S. Nuclear Regulatory Commission U.S. Nuclear Regulatory Commission South Texas Project GE-Hitachi GE-Hitachi URS Safety Management Solutions JAEA - Japan U.S. Nuclear Regulatory Commission TerraPower ABS Consulting, Inc. SCANA University of South Carolina Relko spol, s.r.o TAFA

Timothy Leahy Professor John C. Lee Professor Min Lee John Lehner Mark Leonard Geza Macsuga Charles (Chip) Martin Kajimoto Mitsuhiro Mohammed Moddares Ali Mosleh Vinod Mubavi Yoshiyuki Narumiya Pamela Nelson James O'Brien Ioannis A. Papazoglou Mary Presley Vesselina Ranguelova Marty Sattison Jeffrey L. Shackleford Bonnie J. Shapiro Nathan Siu Carol Smidts Michael G. Stamatelatos Marty Stutzke M. Hadid Subki Randy Sullivan Tutju L. Totev Jan van Erp Reino Virolainen Dave Watson Timothy A. Wheeler Keith Woodard Professor Akira Yamaguchi Dr. Joon-Eon Yang Michael Zentner Enrico Zio



Idaho National Laboratory University of Michigan National Tsing Hua University, Taiwan Brookhaven National Laboratory dycoda Hungary - Atomic Energy Agency Defense Nuclear Facilities Safety Board JNES - Japan University of Maryland University of Maryland Brookhaven National Laboratory Kansai Electric Power Company Sociedad Nuclear Mexico U.S. Department of Energy Institute of Nuclear Technology-Radiation Protection Ares Corporation Joint Research Centre, European Commission Idaho National Laboratory Defense Nuclear Facilities Safety Board Savannah River National Laboratory U.S. Nuclear Regulatory Commission Ohio State University NASA U.S. Nuclear Regulatory Commission International Atomic Energy Agency U.S. Nuclear Regulatory Commission Argonne National Laboratory Consultant Radiation and Nuclear Safety Authority (STUK) United Kingdom HSE Sandia National Laboratories ABS Consulting, Inc. Osaka University KAERI Pacific Northwest National Laboratory Ecole Centrale Paris-Supelec, France & Politecnico di Milano, Italy