



# ANS

# PSA 2019

28 April - 3 May 2019

[www.psa.ans.org/2019](http://www.psa.ans.org/2019)

## PSA 2019 Information Brief

**16th ANS International Conference on Probabilistic Safety Assessment & Analysis (PSA) 2019**  
**Charleston, South Carolina USA ♦ Marriott Charleston**  
*Role of Probabilistic Methods in Understanding Uncertainties and Improving the Safety and Security of Nuclear Facilities and Activities*

**General Chair: Kevin O’Kula, AECOM N&E Technical Services**

**Technical Chair: Professor Mohammad Modarres, University of Maryland**

**Assistant Technical Chair: Bonnie Shapiro, Savannah River Nuclear Solutions**

**Senior Advisory Committee:**

**George Apostolakis, Nuclear Risk Research Center**

**Robert Bari, Brookhaven National Laboratory**

**Robert Budnitz, Lawrence Berkeley National Laboratory**

**Cornelia Spitzer, International Atomic Energy Agency**

**Professor Akira Yamaguchi, University of Tokyo**





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## PSA 2019 OVERVIEW – CALL FOR ABSTRACTS

16th American Nuclear Society International Conference on Probabilistic Safety Assessment & Analysis (PSA) 2019  
Charleston, South Carolina USA ♦ Marriott Charleston

Since 1978, the ANS biennial topical conference on Probabilistic Safety Assessment has been a forum for communication of major probabilistic risk and safety topics worldwide, including issues, methods, applications, insights, policy, research, and risk-informed regulation experience. PSA 2019 will be of interest to those working in traditional applications including nuclear reactor facilities, nonreactor installations, processing, decontamination & decommissioning, storage, as well as other nontraditional areas where probabilistic safety approaches are applied. Topics of discussion are anticipated to include small modular reactor (SMR), Fukushima Daiichi, advanced reactor, multiunit and full site PSA, waste cleanup, natural phenomena, security, and fire risk, as well as many others. The role of probabilistic methods in understanding uncertainties and improving the safety and security of nuclear facilities, and activities will be highlighted.

### Author’s Checklist for PSA 2019:

- ABSTRACTS DUE: 13 AUGUST 2018
- REVIEW NOTIFICATION: 10 SEPTEMBER 2018
- FULL PAPERS DUE: 29 OCTOBER 2018
- REVIEW NOTIFICATION: 11 JANUARY 2019
- FINAL PAPERS DUE: 01 MARCH 2019
- PROCEEDINGS AT PSA 2019: 28 APRIL – 3 MAY

### PSA 2019 ABSTRACT GUIDELINES

Maximum of one page identifying title, authors, affiliations, and two to three paragraphs (total less than 600 words) describing the key concepts of the paper. A wide range of topic areas are highlighted on the next page of this Call. Authors are encouraged to submit papers on these proposed topics as well as others. Authors of accepted abstracts will be notified by September 10, 2018.

### FULL PAPER SUBMISSION

Full papers must describe work that is new, significant, and relevant to the nuclear industry and the subject of the conference. Authors of accepted papers must agree to register and attend the conference and present their papers in person. Papers that are not presented in person at the conference will not appear in the final conference publication. Authors of accepted full papers will be notified by January 11, 2019.

### SUBMISSION WEBSITE - [www.psa.ans.org/2019](http://www.psa.ans.org/2019)

Detailed information and announcements regarding the conference will be posted on the website.

#### PROCEEDINGS COORDINATOR

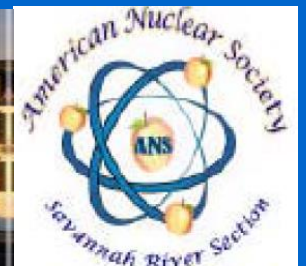
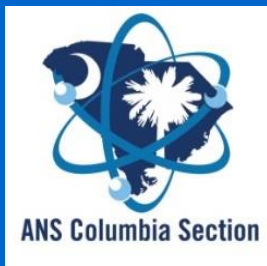
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## Call for Abstracts

### PSA 2019 Paper Categories and Subject Areas\*

#### Category I: PSA Analyses (Methods, Applications, Regulatory-Related, Results)

- Level-1 PSA, Level-2 PSA, Level-3 PSA
- Advanced Reactor PSAs
- Other (Non-Reactor) Risks
- Risk Management
- Cyber/ Security Risk
- Accident Management
- Extended Accidents
- External Events (Seismic, Flood, Wind, Others)
- Internal Fire and Implementation of NFPA805
- Internal Flood
- Fukushima Accident
- Fuel Cycle and Proliferation
- SMR PSAs
- Non-LWR PSAs
- Low Power & Shutdown
- Margin Assessments
- Plant PSA Applications (including site PSAs)
- Test//Research Reactors & Nuclear Facilities
- Transportation Risks
- Onsite Waste Storage
- Repository PSA
- TMI + 40, and PSA Advances

#### Category II: Advanced Topics/Specific Methods/Tools

- Common Cause
- Risk-Informed Decision-Making
- Computer Tools
- Data Analysis
- Digital I&C and Software Reliability
- Dynamic PSA
- Multi-Unit Risk & Risk Integration
- Modeling FLEX Equipment in PRAs
- HRA
- Aging, Probabilistic Failure Analysis
- Passive System Reliability
- Safety Culture, Socio-technical and Organizational Risk
- Uncertainty Quantification & Conservatism
- Quantitative Risk Assessment

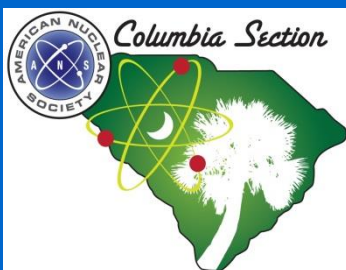
#### Category III: Standards /Training /Regulation

- Risk-Informed Decision Making/ Risk-Informed Regulation
- Education/Training/Knowledge Management
- PRA Standards
- Safety Goals
- Economic Risk
- Defense in Depth

#### Category IV: ANS Grand Challenge Project Areas

- Risk-Informing Nuclear Facility Safety, Advanced Reactor Licensing, Low-Dose Threshold and Nuclear Policy

\*Note: The topics listed are provided as a guide and are not rigid sessions or tracks. The PSA 2019 Technical Program Committee will be happy to expand these topics and include new concepts and sessions into the program. Please contact the Technical Program Chair to discuss new and alternative concepts.





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## Senior Advisory Board & Technical Program Committee

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- **Cornelia Spitzer, International Atomic Energy Agency**
- **Professor Akira Yamaguchi, University of Tokyo**

### Technical Program Committee

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<b>Ken Leonelli</b>	<b>SCANA</b>		
<b>Stanley H. Levinson</b>	<b>AREVA Inc.</b>		
<b>Gerald Loignon</b>	<b>SCANA, retired</b>		
<b>Jose Pires</b>	<b>U.S. NRC</b>		

