

PSAM 14 - Probabilistic Safety Assessment and Management  
TUESDAY, SEPTEMBER 18, 2018

## T21 Special Session: What's next for HRA data?

Tuesday 9/18/2018 3:30 PM Exploration

Chair: Katrina Groth

## T22 Health and Medicine

Tuesday 9/18/2018 3:30 PM Discovery

Chair: Marcelo Martins

### 174 Validation of the NASA Integrated Medical Model: A Space Flight Medical Risk Prediction Tool

Jerry Myers (a), Yamil Garcia (b), John Arellano (c), Lynn Boley (b), Debra Goodenow (a), Eric Kerstmand, Matthew Koslovsky (b), David Reyes (d), Lynn Sail (e), Wafa Taiym (b), Millennia Young (e)

a) National Aeronautics and Space Administration, Glenn Research Center, Cleveland, OH, USA, b) KBRwyle, Houston, TX, USA, c) MEIT, Houston, TX, USA, d) University of Texas Medical Branch, Galveston, TX, USA, e) National Aeronautics and Space Administration, Johnson Space Center, Houston, TX, USA

### 408 A Bayesian Belief Network Model for Risk of Vascular Catheter-Associated Infection

Reza Kazemi (a), Ali Mosleh (b) and Meghan Dierks (c)

a) University of Maryland, College Park, currently at USFDA, b) University of Maryland, College Park, currently at UCLA, c) Harvard Medical school

### 409 A Bayesian Belief Network Model for Risk of Pressure Ulcer

Reza Kazemi (a), Ali Mosleh (b) and Meghan Dierks (c)

a) University of Maryland, College Park, currently at USFDA, b) University of Maryland, College Park, currently at UCLA, c) Harvard Medical school

## T23    Dynamic PSA/PRA II

Tuesday    9/18/2018    3:30 PM    Illumination

Chair: Zachary Jankovsky

- 87    **Code Surrogate Development for Dynamic PRA Using Anisotropic Taylor Kriging Methodology**  
Robby Christian, Hyun Gook Kang  
*Rensselaer Polytechnic Institute, Troy, USA*
- 106    **Development of an Online Operator Tool to Support Real-Time Emergency Planning Based on the Use of Dynamic Event Trees and Deep Learning**  
Ji Hyun Lee, Tunc Aldemir, Alper Yilmaz and Richard Denning  
*The Ohio State University, Columbus, US*
- 121    **Pattern Identification of Dynamic Event Tree Scenarios with Clustering**  
Junyung Kim and Hyun Gook Kang  
*Rensselaer Polytechnic Institute, Troy, USA*
- 126    **Severe Accident Scenario Uncertainty Analysis using the Dynamic Event Tree Method**  
Xiaoyu Zheng, Hitoshi Tamaki, Jun Ishikawa, Tomoyuki Sugiyama, and Yu Maruyama  
*Japan Atomic Energy Agency, Ibaraki, Japan*

## T25    Accident Analysis and Modeling II

Tuesday    9/18/2018    3:30 PM    Legacy B

Chair: Marcelo Martins

- 266    **Source Term Prediction Software in Case of Severe Accidents: FaSTPro for Shutdown States**  
Michael Hage, Michael Kowalik, Sören Johst and Horst Löffler  
*GRS, Cologne, Germany*
- 296    **Analysis of the Effect of Severe Accident Scenario on the Vessel Lower Head Failure in Nordic BWR using MELCOR code**  
Sergey Galushin and Pavel Kudinov  
*Royal Institute of Technology, Stockholm, Sweden*
- 297    **Sensitivity Analysis of the Vessel Lower Head Failure in Nordic BWR using MELCOR Code**  
Sergey Galushin and Pavel Kudinov  
*Royal Institute of Technology, Stockholm, Sweden*
- 390    **Confirmatory Thermal-Hydraulic Analysis to Support Success Criteria in NRC's PRA Models**  
Suzanne Dennis, Shawn Campbell, Don Helton  
*U.S. Nuclear Regulatory Commission, Rockville, MD, USA*

## T26    Nuclear Industry I

Tuesday    9/18/2018    3:30 PM    Pathways

Chair: Futoshi Tanaka

- 41    **On the Recent Research Advancements of Cyber Security of Nuclear Power Plants**  
Yan-Fu Li, Shou-Zhou Liu  
*Department of Industrial Engineering, Tsinghua University, Beijing, China*
- 44    **Review of Probabilistic Safety Assessment as Part of the Periodic Safety Review for NPP Paks**  
Attila Bareith  
*NUBIKI Nuclear Safety Research Institute, Budapest, Hungary*
- 155    **Safety Demonstration – A Strategy for Assessors**  
André A. Hauge, Vikash Katta, Peter Karpati (a) and Bjørn Axel Gran (a,b)  
*a) Department of Risk, Safety and Security, Institute for Energy Technology, Halden, Norway, b) NTNU, Trondheim, Norway*
- 131    **Reliability Analysis of Digital Pressurizer Water Level Control System in NPP based on Boolean Logic Driven Markov Process**  
Yi-jing Mao (a), Xi-yu Chen, Shi-liang Zhou (a,b), Tong-yu Xu, Irsa Rasheed (a)  
*a) School of Nuclear Science and Engineering, North China Electric Power University, Beijing, China, b) Beijing Key Laboratory of Passive Safety Technology for Nuclear Energy, Beijing, China*

**T27      Special Session: Population-based risk stratification in health:  
the opportunity for risk sciences to influence precision medicine**

Tuesday      9/18/2018      3:30 PM      Laureatte