

International Workshop on Treatment of Uncertainties for Novel Aspects of Risk Analyses

Preliminary Program

CSN, 31 March -2 April 2025

M O N D A Y	DAY 1: 31 March 2025 (Monday)	
	Opening Session	
	09:00 – 09:10	Welcome Message, Objectives and Program Juan Carlos Lentijo (CSN)
	09:10 – 09:20	Welcoming Address Yuji Kumagai (OECD NEA)
	09:20 – 10:15	Keynote Speech Dr. George Apostolakis (CRIEPI)
	10:15 – 10:30	WGRISK task survey report Matthew Humberstone (US NRC)
	10:30 – 10:45	Coffee Break
	Session 1 <i>Uncertainties in Risk Informed Decision-Making Applications</i> Chair: TBD (/) / Co-chair: TBD (/)	
	10:45 – 11:15	1.1 Treatment of Uncertainties in Risk Informed Decision Making within the Canadian Regulatory Framework Abderrazzaq (Zaq) Bounagui (CNSC)
	11:15 – 11:45	1.2 Ongoing Efforts to Address Uncertainty Assessment Challenges for Regulatory Applications at the NRC Matthew Humberstone , Jeff Wood, Hanh Phan, Gerardo Martinez-Guridi (US NRC)
11:45 – 12:15	1.3 Issues and Discussions about the PRA Uncertainties for Decision Making Yoshikane Hamaguchi (NRA), Ali Mosleh (UCLA)	
12:15 – 12:45	1.4 KHNP's Approaches to Uncertainty Analysis in Level 1 PSA Hojun Jeon (KHNP)	

12:45 – 13:15	Panel Discussion Panelists: Abderrazzaq Bounagui (CNSC) , Matthew Humberstone (US NRC) , Yoshikane Hamaguchi (NRA) , Hojun Jeon (KHNP)
13:15 – 14:45	Lunch break
14:45 – 15:15	1.5 The Impact of Environmental Conditions on Human Reliability Analysis in Safety-Critical Systems Ibrahim Alrammah (RDIA)
15:15 – 15:45	1.6 EPRI perspectives on PSA uncertainty Fernando Ferrante (EPRI)
15:45 – 16:15	1.7 EDF Hierarchization Process for PSA Insights valuing Strength of Knowledge Cecile Luzoir , Hugo Jadot, Thomas Bocquet (EDF)
16:15 – 16:45	1.8 Extended BEPU: Enlarging the Scope of the Uncertainty Assessment in Deterministic Safety Analysis Rafael Mendizábal , Enrique Meléndez (CSN), Cesar Qeral (UPM), M. Sánchez (CSN)
16:45 – 17:15	Panel Discussion Panelists: Ibrahim Alrammah (RDIA) , Fernando Ferrante (EPRI) , Cecile Luzoir (EDF) , Rafael Mendizábal (CSN)
17:15	End of Day 1

DAY 2: 1 April 2025 (Tuesday)	
09:00 – 09:15	Recap and objectives
Session 2	<i>Sensitivity Assessments and Other Approaches</i> Chair: TBD (/) / Co-chair: TBD (/)
9:15 – 9:45	2.1 Computing Risk with Confidence using Confidence-boxes Adolphus Lye (Singapore Nuclear)
9:45 – 10:15	2.2 Treatment of Uncertainties for Critical Design Parameters of the eVinci Microreactor Kyle Hope, Fernando Cebriano, Oleg Boychenko , James Scobel (Westinghouse)
10:15 – 10:45	2.3 Sensitivity Characterization in Probabilistic Structure Assessments Klaus Heckmann (GRS)
10:45 – 11:15	Panel Discussion Panelists: Adolphus Lye (Singapore Nuclear), Oleg Boychenko (Westinghouse), Klaus Heckmann (GRS)
11:15 – 11:30	Coffee Break
11:30 – 12:00	Discussion Topic: Uncertainty Considerations for Advanced Reactor Risk Metric
Session 3	<i>Time Uncertainty and Dynamic PSA</i> Chair: TBD (/) / Co-chair: TBD (/)
12:00 – 12:30	3.1 Uncertainty Analysis and Impact Assessment in Dynamic PRA for Risk-Informed Decision Making Xiaoyu Zheng , Hitoshi Tamaki, Ysauteru Sibamoto, Yu Maruyama (JAEA)
12:30 – 13:00	3.2 Reliability Assessment of Passive Systems Using Adaptive Sampling to Reduce Uncertainties Florian Berchtold (GRS)
13:00 -14:30	Lunch break
14:30 – 15:00	3.3 Time-Based Human Reliability Analysis with Uncertainty in Performance Shaping Factors and its Uncertainty Analysis Gyun Seob Song , Man Cheol Kim (Chung-Ang University)
15:00 – 15:30	3.4 IDPSA Methods: An Attempt of Assessing the Uncertainty in all the Three Ingredients of Risk Miguel Sánchez (IRSN)

	15:30 – 16:00	3.5 Time Uncertainty. Experience with Dynamic PSA tools Cesar Queral (UPM), Miguel Sánchez, Enrique Meléndez, Rafael Mendizábal (CSN)
	16:00 – 16:30	3.6 A Pragmatic Approach to Update Support Studies and Human Reliability Analyses for a PSA Model Valentin Rychkov , Claudia Picoco (EDF)
	16:30 – 17:15	Panel Discussion Panelists: Xiaoyu Zheng (JAEA), Florian Berchtold (GRS), Gyun Seob Song (Chung-Ang University), Miguel Sánchez (IRSN), Cesar Queral (UPM), Valentin Rychkov (EDF)
	17:15	End of Day 2
DAY 3: 2 April 2025 (Wednesday)		
	09:00 – 09:15	Recap and objectives
W E D N E S D A Y	Session 4 Level 2/3 PSA Uncertainties Chair: TBD ()/ Co-chair: TBD ()	
	9:15 – 9:45	4.1 Probabilistic Estimation of the Increase in the Probability of Steam Generator Tube Failure Due to Wall Flaw Kenji Yonebayashi (NRA)
	9:45 – 10:15	4.2 Uncertainty Analysis for Cs-137 Quantification for Risk Safety Goal Assessment Seunghyeon Hwang , Jaehyun Cho (Chung-Ang University)
	10:15 – 10:45	4.3 Overview of Activities Related to Quantification of Uncertainties in Level 2 PRA at CRIEPI Koichi Nakamura (CRIEPI)
	10:45 – 11:15	4.4 Formulation of ACE Algorithm-Based Surrogate Models for Supporting Phenomenological Uncertainty Analysis in Level 2 PSA Kwang-Il Ahn (KAERI)
	11:15 – 11:30	Coffee Break
	11:30 – 12:00	Panel Discussion Panelists: Kenji Yonebayashi (NRA), Seunghyeon Hwang (Chung-Ang University), Koichi Nakamura (CRIEPI), Kwang-Il Ahn (KAERI)
	Closing Session	
	12:00 – 12:30	General discussion

	12:30 – 12:45 Next steps, farewell
	12:45 – 13:00 Closing Remarks (CSN)
	13:00 END OF WORKSHOP