

General programme

Local time	CEST time	May 12 (Wednesday)		Local time	CEST time	May 13 (Thursday)		Local time	CEST time	May 14 (Friday)
08:30-09:15	09:30-10:15	Opening session		08:30-09:15	09:30-10:15	KL3: Bruno Sudret (ETH Zurich)		08:30-10:00	09:30-11:00	Session 8
09:15-10:00	10:15-11:00	KL1: Ricardo Monteiro (IUSS Pavia)		09:15-10:00	10:15-11:00	Session 4		10:00-10:20	11:00-11:20	Coffee-break
10:00-10:20	11:00-11:20	Coffee-break		10:00-10:20	11:00-11:20	Coffee-break		10:20-11:05	11:20-12:05	KL5: Herbert Einstein (MIT)
10:20-11:45	11:20-12:45	Session 1		10:20-11:45	11:20-12:45	Session 5A	Session 5B	11:05-11:25	12:05-12:25	Closing session
11:45-12:00	12:45-13:00	Social activity		11:45-12:00	12:45-13:00	Social activity				
12:00-13:30	13:00-14:30	Lunch break		12:00-13:30	13:00-14:30	Lunch break				
13:30-14:15	14:30-15:15	KL2: Emilio Bastidas-Arteaga (La Rochelle University)		13:30-14:15	14:30-15:15	KL4: John D. Sørensen (Aalborg University)				
14:15-15:15	15:15-16:15	Session 2A	Session 2B	14:15-15:15	15:15-16:15	Session 6A	Session 6B			
15:15-15:35	16:15-16:35	Coffee-Break		15:15-15:35	16:15-16:35	Coffee-Break				
15:35-17:00	16:35-18:00	Session 3A	Session 3B	15:35-17:00	16:35-18:00	Session 7A	Session 7B			

Please consider your time zone while scheduling your participation in IPW2020

City	Time
Guimarães (local time reference)	08:30
Paris	09:30
Pretoria	09:30
Helsinki	10:30
Beijing	15:30
Tokyo	16:30
Washington, D.C	03:30
Bogota	02:30

Detailed programme

Local time	CEST time	May 12 (Wednesday)
08:30-9:15	09:30-10:15	Opening Session
08:30-09:15	09:30-10:15	Welcome from: - Representative of the Municipality of Guimarães; - Representative of the School of Engineering from University of Minho; - President of IPW (Dirk Proske); - Co-Chairmans of IPW2020 (José C. Matos and Paulo B. Lourenço)
09:15-10:00	10:15-11:00	Keynote Lecture 1
09:15-09:50	10:15-10:50	Probabilistic Seismic Risk Assessment of School Buildings <i>Ricardo Monteiro</i>
09:50-10:00	10:50-11:00	Q&A Discussion
10:00-10:20	11:00-12:20	Coffee-break
10:20-11:45	11:20-12:45	Session 1: Risk assessment and management
10:20-10:32	11:20-11:32	A Novel Analytical Method Set for Damage Control and Care-process Management by the Cathedral of Milan <i>Francesco Canali, Lorenzo Cantini, Anthoula Konsta and Stefano Della Torre</i>
10:32-10:44	11:32-11:44	Construction Risk Management in Portugal – Identification of the Tools/techniques and Specific Risks in the Design and Construction Phases <i>António J. Marinho and João P. Couto</i>
10:44-10:56	11:44-11:56	Discussion of the Number of Risk Classes for Risk Based Maintenance <i>Dirk Proske and David Tschan</i>
10:56-11:08	11:56-12:08	Estimation of the Global Health Burden of Structural Collapse <i>Dirk Proske</i>
11:08-11:20	12:08-12:20	Parameter Uncertainties in Flow Rate and Velocity Analysis of Heavy Rain Events <i>Axel Sauer and Regine Ortlepp</i>
11:20-11:32	12:20-12:32	Rockburst Risk Assessment Based on Soft Computing Algorithms <i>Joaquim Tinoco, Luis Ribeiro e Sousa, Tiago Miranda and Rita Leal e Sousa</i>
11:32-11:45	12:32-12:45	Q&A Discussion
11:45-12:00	12:45-13:00	Social activity
12:00-13:30	13:00-14:30	Lunch break

Local time	CEST time	May 12 (Wednesday)	
13:30-14:15		14:30-15:15	
		Keynote Lecture 2	
13:30-14:05	14:30-15:05	Towards Climate Change Adaptation of Existing and New Deteriorating Infrastructure <i>Emilio Bastidas-Arteaga</i>	
14:05-14:15	15:05-15:15	Q&A Discussion	
14:15-15:15		15:15-16:15	
Session 2A: Novel decision-making frameworks		Session 2B: Probabilistic tools for probabilistic vulnerability and lifetime assessment of infrastructure in the context of climate change & natural hazards in Atlantic area	
14:15-14:27	15:15-15:27	Development of Culvert Risk Condition Evaluation for Decision-making Within Road Infrastructure Management <i>Fernando Sousa, Sara Dias, José Matos and Aires Camões</i>	Dynamic Response Equivalence of a Scaled Bridge Model due to Vehicular Movement <i>Paul Cahill and Vikram Pakrashi</i>
14:27-14:39	15:27-15:39	Prediction of Concrete Breakout Strength of Single Anchors in Shear <i>Oladimeji B. Olalusi and Panagiotis Spyridis</i>	Life-Cycle Cost Analysis of a Viaduct Considering Uncertainties on the Interventions Plan <i>Carlos Santos, Mário Coelho, Monica Santamaria-Ariza et al.</i>
14:35-14:45	15:35-15:45	Probabilistic Modeling of Impact of Vehicles on the Road Furniture <i>A. Strauss, P. Spyridis, I. Zambon, T. Moser, C. Honeger and D.M. Frangopol</i>	Stochastic Carbon Dioxide Forecasting Model for Concrete Durability Applications <i>Bassel Habeeb, Emilio Bastidas-Arteaga, Helena Gervásio and Maria Nogał</i>
14:45-14:55	15:45-15:55	Study on the Accuracy of Chloride Determination Methods and their Predictions <i>Fritz Binder, Stefan L. Burtscher and Alfred Strauss</i>	The Impact of Clustering in the Performance Prediction of Transportation Infrastructures <i>Carlos Santos, Sérgio Fernandes, Mário Coelho and José Matos</i>
14:55-15:15	15:55-16:15	Q&A Discussion	Q&A Discussion
15:15-15:35		16:15-16:35	
		Coffee-break	
14:15-15:15		15:15-16:15	
Session 3A: Resilience, robustness and redundancy of systems		Session 3B: Fundamentals and application of probability theories	
15:35-15:47	16:35-16:47	A DC Optimal Power Flow Approach to Quantify Operational Resilience in Power Grids <i>Zarif Ahmet Zaman and Edoardo Patelli</i>	A Quick Criterion for Calculating Waiting Phenomena at Intersections <i>Raffaele Mauro, Marco Guerrieri and Andrea Pompigna</i>
15:47-15:59	16:47-16:59	Establishment of Suitable General Probabilistic Model for Shear Reliability Analysis <i>Oladimeji Benedict Olalusi and Panagiotis Spyridis</i>	Assessment of Design Concepts for Post-Installed Punching Shear Retrofitting <i>Oladimeji B., Pune Mowlavi, Nikolaos Mellios and Panagiotis Spyridis</i>
15:59-16:11	16:59-17:11	Fragility Curves for Fire Exposed Structural Elements through Application of Regression Techniques <i>Ranjit K. Chaudhary, Ruben Van Coile and Thomas Gernay</i>	At Issue: The Gaussian Autocorrelation Function <i>Marc A. Maes, Karl Breitung and Markus R. Dann</i>
16:11-16:23	17:11-17:23	Location Dependency on Resilience and Material Intensity of an Office Building Keeping an Eye on Seismic Zone Implications <i>Regine Ortlepp and Mahar A. Gul</i>	Bridge Case Studies on the Assignment of Partial Safety Factors for the Assessment of Existing Structures <i>André Orcešj, Vazul Boros, Marija Kušter Marić et al.</i>
16:23-16:35	17:23-17:35	Probabilistic Characterization of the Axial Load Bearing Capacity of a Concrete Column Exposed to the Standard Fire <i>Balša Jovanović and Ruben Van Coile</i>	Cumulative Failure Probability of Deteriorating Structures: Can it Drop? <i>Ronald Schneider and Daniel Straub</i>
16:35-17:00	17:35-18:00	Q&A Discussion	Q&A Discussion

Local time	CEST time	May 13 (Thursday)	
08:30-09:15		09:30-10:15	
Keynote Lecture 3			
08:30-09:05	09:30-10:05	Surrogate Models for Reliability Analysis and Reliability-Based Design Optimization <i>Bruno Sudret</i>	
09:05-09:15	10:05-10:15	Q&A Discussion	
09:15-10:00		10:15-11:00	
Session 4: Climate change and loading uncertainties			
09:15-09:27	10:15-10:27	Accounting for Joined Probabilities in Nation-wide Flood Risk Profiles <i>Ferdinand Diermanse, Joost V.L. Beckers, Cathy Ansell and A. Bavandi</i>	
09:27-09:39	10:27-10:39	Comparison of Measured and Simulated Traffic Loading Based on BWIM Data from the Millau Viaduct <i>Marcel Nowak, Franziska Schmidt and Oliver Fischer</i>	
09:39-09:51	10:39-10:51	Uncertainty Assessment in Building Physics Related Problems Using Stochastic Finite Element Method <i>Witold Grymin and Marcin Koniorczyk</i>	
09:51-10:00	10:51-11:00	Q&A Discussion	
10:00-10:20		11:00-12:20	
Coffee-break			
10:20-11:45		11:20-12:45	
Session 5A: Fundamentals and application of probability theories		Session 5B: Reliability in geotechnical engineering	
10:20-10:32	11:20-11:32	FORM/SORM, SS and MCMC: a Mathematical Analysis of Methods for Calculating Failure Probabilities <i>Karl W. Breitung</i>	An Efficient Solution for Reliability Analysis Considering Random Fields – Application to an Earth Dam <i>Xiangfeng Guo, Daniel Dias and Qiuqing Pan</i>
10:32-10:44	11:32-11:44	Fractile Based Sampling Procedure for the Effective Analysis of Engineering Structures <i>Alfred Strauss, Beatrice Belletti and Thomas Zimmermann</i>	Inherent Variability of Geotechnical Properties for Finnish Clay Soils <i>Monica S. Löfman and Leena K. Korkiala-Tanttu</i>
10:44-10:56	11:44-11:56	International Codes in the Prediction of Load-bearing Capacity of Slender Columns <i>Alfred Strauss, Neryvaldo Galvão, José Matos et al.</i>	Investigation of Parameter Uncertainties Inherent to the Geotechnical Design of Bank Revetments at Inland Waterways <i>Julia Sorqatz and Joan Kayser</i>
10:56-11:08	11:56-12:08	Implementation of Reliability methods in a New Developed Open-source Software Library <i>Jan Philip Schulze-Ardey, Tânia Feiri, Josef Hegger and Marcus Ricker</i>	Probabilistic FEM-Analysis for the Retaining Wall of a Deep Excavation at SLS <i>Alexandra Ene, Timo Schweckendiek and Horatiu Popa</i>
11:08-11:20	12:08-12:20	Integration of the Analysis of the Error of Geometric Dimensions Modeled with a Probabilistic Approach <i>Marc Gille, Pierre Beaurepaire, Fabien Taghon et al.</i>	Probability of Flooding due to Instability of the Outer Slope of a Levee <i>Anton W. van der Meer, Ana Teixeira, Arno P.C. Rozing and Wim Kanning</i>
11:20-11:32	12:20-12:32	Long Term Evaluation of the Structural Reliability of an Existing Concrete Prestressed Bridge <i>Tommaso Donolato, Neryvaldo Pereira and José C. Matos</i>	Risk-Driven Decision Making Within the Observational Method: Case Study Based on the New International Airport of Mexico City <i>Antonios Mavritsakis, Martin de Kant and Joost Van der Schrier</i>
11:32-11:45	12:32-12:45	Q&A Discussion	
11:45-12:00		12:45-13:00	
Social activity			
12:00-13:30		13:00-14:30	
Lunch break			

Local time	CEST time	May 13 (Thursday)	
13:30-14:15		14:30-15:15	
Keynote Lecture 4			
13:30-14:05	14:30-15:05	Reliability Modelling and Probabilistic Design of Wind Turbines <i>John Dalsgaard Sørensen</i>	
14:05-14:15	15:05-15:15	Q&A Discussion	
14:15-15:15		15:15-16:15	
Session 6A: Fundamentals and application of probability theories		Session 6B: Risk assessment and performance evaluation of critical infrastructures	
14:15-14:27	15:15-15:27	Probabilistic-based Consequence Analysis for Transport Networks <i>Donya Hajializadeh, Chia Sadik and Boulent Imam</i>	
14:27-14:39	15:27-15:39	Evaluation of Partial Safety Factors for the Structural Assessment of Existing Masonry Buildings <i>Pietro Croce, Maria L. Beconcini, Paolo Formichi et al.</i>	
14:35-14:45	15:35-15:45	Stochastic Simulation of Clay Brick Masonry Walls with Spatially Variable Material Properties <i>Dominik Müller, Tilo Proske and Carl-Alexander Graubner</i>	
14:45-14:55	15:45-15:55	Q&A Discussion	
14:55-15:15	15:55-16:15	Q&A Discussion	
15:15-15:35		16:15-16:35	
Coffee-break			
14:15-15:15		15:15-16:15	
Session 7A: Uncertainty analysis and reliability assessment of timber structures		Session 7B: Risk assessment and performance evaluation of critical infrastructures	
15:35-15:47	16:35-16:47	Application of Fragility Analysis to Timber-Framed Structures for Seismic and Robustness Assessments <i>Leonardo Rodrigues, Jorge M. Branco, Luis A. C. Neves and André R. Barbosa</i>	
15:47-15:59	16:47-16:59	Influence of an In-situ Inspection on the Reliability Analysis of an Ancient Timber Roof <i>Leonardo Rodrigues and Hélder S. Sousa</i>	
15:59-16:11	16:59-17:11	Reliability Analysis of Timber Elements Under Different Load Types and Identification of Critical Scenarios for the Evaluation of Existing Structures <i>Maria Loebjinski, Wolfgang Rug and Hartmut Pasternak</i>	
16:11-16:23	17:11-17:23	Statistical Dependence Investigation Related to Dowel-type Timber Joints <i>Caroline D. Aquino, Leonardo G. Rodrigues, Wellison S. Gomes and Jorge M. Branco</i>	
16:23-16:35	17:23-17:35	Uncertainty Associated to Regression Models Used for Assessing the Stiffness of Structural Timber Elements <i>José Saporiti Machado</i>	
16:35-17:00	17:35-18:00	Q&A Discussion	
		Identification of Risk Management Models and Parameters for Critical Infrastructures <i>Oscar J. Urbina, Elisabete R. Teixeira and José M. Matos</i>	
		Reliability Assessment of Oil and Gas Pipeline Systems at Burst Limit State under Active Corrosion <i>Ram K. Mazumder, Abdullahi M. Salman and Yue Li</i>	
		Risk Assessment of a Railway Bridge Subjected to a Multi-hazard Scenario <i>João Fernandes, Monica Santamaria, José C. Matos et al.</i>	
		Risk Assessment of Road Infrastructures as Key for Adaptability Measures Selection <i>Érica L. Arango, Hélder S. Sousa and José C. Matos</i>	
		Vulnerability Assessment of Aging Levees with WINGS and Interval Arithmetic <i>Francesca Marsili, Jörg Bödefeld, Lukas Weber and Maryam Ghadami</i>	
		Q&A Discussion	

Local time	CEST time	May 14 (Friday)
08:30-10:00	09:30-11:00	Keynote Lecture 3
08:30-08:42	09:30-09:42	Model Updating With Reduced Experimental Data <i>Pierre Beurepaire</i>
08:42-08:54	09:42-09:54	Numerical Modeling of an Extrusion-based Concrete Printing Process Considering Spatially and Temporarily Varying Material and Process Parameters <i>Albrecht Schmidt, Meron Mengesha, Luise Göbel, Carsten Könke and Tom Lahmer</i>
08:54-09:06	09:54-10:06	Probabilistic Methods For Code Calibration Exemplified For The Punching Shear Resistance Model Without Shear Reinforcement <i>Tânia Feiri, Marcus Ricker, Jan Philip Schulze-Ardey and Josef Hegger</i>
09:06-09:18	10:06-10:18	Semi-empirical Based Response Surface Approach for Reliability Evaluation of Steel Plates with Random Fields of Corrosion <i>Angelo P. Teixeira and Carlos Guedes Soares</i>
09:18-09:30	10:18-10:30	Spatial Variability of Rebar Corrosion and Performance Evaluation of Corroded RC Structures Using Probabilistic Analysis and Finite Element Method <i>Mitsuyoshi Akiyama, Dan M. Frangopol and Mingyang Zhang</i>
09:30-09:42	10:30-10:42	Stochastic Degradation Model of Concrete Bridges Using Data Mining Tools <i>Yina F. M. Moscoso, Monica P. Santamaria-Ariza, Hélder S. Sousa and José A. Campos e Matos</i>
09:42-10:00	10:42-11:00	Q&A Discussion
10:00-10:20	11:00-11:20	Coffee-break
10:20-11:05	11:20-12:05	Keynote Lecture 5
10:20-10:55	11:20-11:55	Decision Analysis Applied to Natural Hazards <i>Herbert H. Einstein and Rita L. Sousa</i>
10:55-11:05	11:55-12:05	Q&A Discussion
11:05-11:25	12:05-12:25	Closing Session
11:05-11:25	12:05-12:25	Closing ceremony and announcement of the winner of the best presentation award by: - President of IPW (Dirk Proske); - President of the Scientific Committee of IPW2020 (Daniel V. Oliveira); - Co-Chairman of IPW2020 (José C. Matos) - Chairman of IPW2021 (Roman Lenner)