



IPMU 2026

ROME

*21st International Conference on
Information Processing and Management of Uncertainty in Knowledge-Based Systems*

Rome, Italy – 15-19 June 2026

PROGRAM



SAPIENZA
UNIVERSITÀ DI ROMA

Thumbs up to IPMU's 40th anniversary



Monday, 15 June 2026

	<u>Parallel 1</u>	<u>Parallel 2</u>	<u>Parallel 3</u>
13:00-14:00	Registration		
14:00-14:30	Opening		
14:30- 15:30	SS02: Aggregation theory	SS15: Multivalued logics	SS03: Bridging statistical theory and computational methods
	Chair: B. de Baets	Chair: M. Tabacchi	Chair: R. de Andrés
14:30-14:50	Marina Iturrate-Bobes, Ignacio Montes and Raúl Pérez-Fernández <i>Two-sample goodness-of-fit tests to a location-scale family using OWA-based skewness coefficients</i>	Manuel Mancini and Federica Piazza <i>Ideally Exact Categories, Varieties of Universal Algebras and Multi-Valued Logics</i>	Thomas A. Runkler <i>Utility Estimation from Fuzzy Preference Matrices by Approximating Consistency</i>
14:50-15:10	Marina Iturrate-Bobes, Ignacio Montes and Raúl Pérez-Fernández <i>Asymptotic confidence intervals for a skewness parameter by using OWA functions</i>	Lydia Castronovo, Giuseppe Filippone, Gianmarco La Rosa and Marco Elio Tabacchi <i>Fuzzy Rule-Based Approach for Weighting Artificial Experts involved in a Multi-Criteria Group Decision-Making Problem</i>	Rocio de Andres Calle, José Manuel Cascon Barbero and Silvia Prieto Herráez <i>Supporting collective decision-making for redrawing primary healthcare areas</i>
15:10-15:30	Ander Goñi-Medrano, Raúl Pérez-Fernández, Marisol Gómez and Bernard De Baets <i>Construction methods for uninorms on a specific family of bounded lattices</i>	Gianmarco La Rosa and Federica Piazza <i>Functors between Fuzzy Varieties</i>	de Andrés Calle Rocío, José Manuel Pavía and Patrizia Pérez-Asurmendi <i>A Computational Entropy-Based Approach to Intention-Vote Transitions</i>
15:30- 16:00	Coffee break		
16:00-18:00	SS18: Robustness in economics	SS23: Eusflat WG on Mathematical Fuzzy Logic	Data mining
	Chair: A. Cinfrignini	Chair: T. Flaminio	Chair: G. de Tré
16:00-16:20	Achraf Walli, Lamia Hadrach Belguith and Jose M. Alonso-Moral <i>A Risk Management Agent with Uncertainty Quantification for Financial Trading</i>	Serafina Lapenta and Sebastiano Napolitano <i>Optimizing de Finetti's Coherence: a Complexity Analysis</i>	Janneke Bolt, Arjen Hommersom and Silja Renooij <i>Take Care when Tuning Bayesian Networks</i>

16:20-16:40	Davide Petturiti, Barbara Vantaggi and Gabriele Stabile	Francesco Manfucci, Luca Carai and Valeria Giustarini	Iván Pérez, Jiří Vomlel and Patrícia Martinková
	<i>On the role of ambiguity in randomized reinsurance contracts</i>	<i>Free Nelson algebras: a dual description</i>	<i>On Item Selection Algorithms for Noisy-AND Computerized Adaptive Testing</i>
16:40-17:00	Luca Palmacci	Stefano Aguzzoli and Matteo Bianchi	Sifeddine Sellami, Juba Agoun, Louenas Bounia, Celine Rouveirol and Sébastien Destercke
	<i>Validating Conditional Generators via Induced Metric Laws</i>	<i>On the complexity of the logics of strongly perfect MTL-algebras and related systems</i>	<i>MisShapForest: Reliable Missing Data Imputation via SHAP-enhanced MissForest</i>
17:00-17:20	Aleksandra Rutkowska	Valeria Giustarini, Luca Carai and Francesco Manfucci	Fares Grina, Zied Elouedi and Eric Lefevre
	<i>A Robust Approach to Model Selection in Learning-to-Forecast Exercises</i>	<i>Free Nelson Algebras: an algebraic overview</i>	<i>Uncertainty-Driven Imbalanced Image Classification: Enhancing Robustness with GANs and Evidence Theory</i>
17:20-17:40	Davide Petturiti and Maria Rifqi	Sarah Nastasi and Brunella Gerla	Marcelo Loor, Ana Tapia-Rosero and Guy De Tré
	<i>Credal Ensemble Classification with Structural Discriminative Gaussian-Bernoulli RBMs</i>	<i>On the Gödel algebra of fuzzy languages</i>	<i>Handling Veracity in Multi-class SVM Classification</i>
17:40-18:00	Andrea Cinfrignini, Silvia Lorenzini, Davide Petturiti and Barbara Vantaggi	Pavle Milošević, Milica Zukanović, Miroslav Hudec, Ivana Dragovic and Javier Fernandez	Chunyang Fan, Marie-Jeanne Lesot and Fadi Badra
	<i>Enforcing Sparsity of Imprecise Transport Plans in Dempster-Shafer Optimal Transport</i>	<i>Introducing Interpolative Boolean Algebra for Interval-Valued Fuzzy Sets</i>	<i>Compatibility-based Similarity Learning for Case Base Prediction</i>
18:00-19:30	Welcome cocktail		

Tuesday, 16 June 2026

	<u>Parallel 1</u>	<u>Parallel 2</u>	<u>Parallel 3</u>
09:00-10:20	SS10: Uncertainty in cooperative automated systems - Part 1	SS21: Eusflat WG on Aggregation Functions	SS14: Modeling uncertainty - Part 1
	Chair: J.L. Verdegay	Chair: O. Hutník	Chair: A. Bouchet
9:00-9:20	Juan Carlos Figueroa-García, Roman Neruda, Yurilev Chalco-Cano and Carlos Franco	Juraj Kalafut and Andrea Mesiarová-Zemánková	Marina Dáder-Suárez, Emilio Torres-Manzanera, Javier Fernandez, Susana Montes and Humberto Bustince
	<i>A TOPSIS-based cooperative strategy for solving imprecise MCDM problems</i>	<i>Review on recent advances in non-commutative associative aggregation functions</i>	<i>Structural Centrality in Admissible Orders for Interval-Valued Fuzzy Sets: How the Wisdom of Crowds Operationalizes Consensus Ranking</i>
9:20-9:40	Boris Pérez-Cañedo, José Luis Verdegay, Eduardo René Concepción-Morales and David A. Pelta	Zuzana Ontkovicova, Yasuo Narukawa and Vicenc Torra	Jono Sonck, Antoon Bronselaer and Guy De Tré
	<i>A Cooperative ADM System for Fuzzy Multi-objective Optimization</i>	<i>Derivative for discrete Sugeno integral</i>	<i>Dynamic Belief Networks for Data Currency Estimation</i>
9:40-10:00	Mariia Godz, Pavel Novoa-Hernández and David A. Pelta	Gül Deniz Çaylı	Swikar Bhandari, Thuy Nhat Vy Dinh and Maurice van Keulen
	<i>A Cooperative and Context-Aware Approach for Employee Attrition Prevention</i>	<i>A new construction method for uninorms on a bounded lattice through uninorms on its subintervals</i>	<i>Towards a Systematic Open-Source Information Fusion Framework for Criminal Investigations</i>
10:00-10:20	Natalio Krasnogor	Jana Borzová, Ondrej Hutník and Miriam Kleinová	Sara Suarez-Fernandez, Agustina Bouchet, Susana Diaz-Vazquez and Susana Montes
	<i>Vibe Coding Experiments for Reducing Vagueness in Scientific Mining: Expert-LLM Aggregation for Data-Card Extraction</i>	<i>Fill-in Restrictions and Conditioning for Measure-Based Level-Set Functionals</i>	<i>Embedding-based similarity approaches under data uncertainty</i>
10:20-11:00	Coffee break		
11:00-12:00	Plenary: Marco Zaffalon. Chair: E. Miranda		

12:00-13:00	SS10: Uncertainty in cooperative automated systems - Part 2 Chair: D. Pelta	SS19: Soft computing in data analysis - Part 1 Chair: K. Kacmarek-Majer	SS20: Imprecise probabilities - Part 1 Chair: D. Nieto
12:00-12:20	Hanane El Raoui, John Quigley, Jonathan Corney, Gokula Vijaykumar Annamalai Vasantha and Andrew Sherlock <i>Cooperative Multi-Strategy Assisted Reinforcement Learning in Agent-Based Simulation of Industrial Safety Compliance</i>	Maciej Romaniuk and Weronika Kamińska <i>Fuzzy Approach for Catastrophic Data Improved with Resampling and GAN Algorithms</i>	Pierre Pomeret <i>Minimum Expected Utility and Non-maximal Credal Sets in the Uncertain Evidence Framework for Belief Functions</i>
12:20-12:40	Juan Lara-Rubio, Andrés Navarro-Galera, M. Elena Gómez-Miranda and Dionisio Buendía-Carrillo <i>Post-Insolvency Zombification in SMEs: A Cooperative AI-Based Predictive Framework</i>	Matteo Castano, Davide Cazzorla and Corrado Mencar <i>A Bayesian framework for ranking healthcare facilities under uncertainty</i>	Vaclav Kratochvil, Radim Jirousek and Milan Daniel <i>A Polyhedral Approach to Learning Belief Functions from Imprecise Data</i>
12:40-13:00	Juan Lara-Rubio, Andrés Navarro-Galera and Ana Martín-Schubert <i>A Cooperative AI Framework for Risk-Sensitive Microcredit Pricing: PD Estimation and IRB-Based Interest Rates in Microfinance</i>	Hisashi Noma, Theodoros Evrenoglou and Kazushi Maruo <i>Managing Inferential Uncertainty in Rare-Event Meta-Analysis: Likelihood-Based Aggregation with Higher-Order and Bootstrap Adjustments</i>	Ignacio Montes and Enrique Miranda <i>On the commutativity of the aggregation of capacities and the natural extension to gambles</i>
13:00-14:20	Lunch		
14:20- 16:20	SS09: Foundations of fuzzy sets - Part 1 Chair: J. Elorza	Fuzzy implication Chair: L. Godó	SS20: Imprecise probabilities - Part 2 Chair: I. Montes
14:20-14:40	Jiří Močkoř <i>Extended quantales and new fuzzy set types</i>	Milan Studeny <i>Semi-graphoids viewed as collections of posets</i>	Francesc Pifarre-Esquerda, Eric Goubault and Sylvie Putot <i>Propagation of interval belief structures and imprecise copulas for neural network verification</i>

14:40-15:00	Pablo Hernández-Varela, Francisco Javier Talavera, Carmen Torres-Blanc, Pedro Huidobro, Susana Cubillo and Jorge Elorza	Petra Murinová and Vilém Novák	Darío Tagarro, Enrique Miranda and Raúl Pérez-Fernández
	<i>New negations for notable restrictions on the membership degrees of type-2 fuzzy sets</i>	<i>Extended Peterson's Rules for Syllogisms Related to Graded Peterson's cube of opposition</i>	<i>An order-theoretic study of the credal sets generated by comparative probabilities</i>
15:00-15:20	Patrik Eklund and Jari Kortelainen	Henri Prade and Gilles Richard	David Nieto-Barba, Sébastien Destercke and Enrique Miranda
	<i>On type reductions with quantale based fuzzy sets</i>	<i>Pair Comparators: a Family of Connectives Related to Logical Proportions</i>	<i>Weighted Total Variation distances for contextual robustification</i>
15:20-15:40	Carolina Díaz-Montarroso, Nicolás Madrid and Jorge Elorza	Didier Dubois, Lluís Godo and Rico Agnès	Nicolás Carrizosa, Ignacio Montes and Enrique Miranda
	<i>On the Monotonicity of Fuzzy Inference Systems Based on f-inclusion</i>	<i>Implication-based qualitative integrals and a logical formalization</i>	<i>Decision making with generalised distortion models</i>
15:40-16:00	Şuara Onbaşıoğlu Altuhovs, Banu Pazar Varol and Berna Kiraz	Jelizaveta Jelinska and Olga Grigorenko	Justyna Dąbrowska, Banda Norimarna and Arthur Van Camp
	<i>Picture Fuzzy Set–Based Approach for Classification</i>	<i>Learning Expert Importance via Fuzzy Equivalence–Based Aggregation</i>	<i>A preliminary study of notions of independence for choice functions</i>
16:00-16:20	Matúš Ďubek and Mikel Ferrero-Jaurrieta	Ronald Manríquez and Cristian Carvajal	Alexander Erreygers
	<i>General negation for φ-intuitionistic fuzzy sets</i>	<i>A New Model to Fuzzy Voronoi Diagram</i>	<i>Allowing for imprecision in the game-theoretic characterisation of the Poisson process</i>
16:20-16:50	Tea break		
16:50-18:30	Eusflat meeting		

Wednesday, 17 June 2026

	<u>Parallel 1</u>	<u>Parallel 2</u>	<u>Parallel 3</u>	<u>Parallel 4</u>
09:00-10:20	Aggregation	SS04: Explainable AI - Part 1	SS06: Fuzzy logic and quantum computing	
	Chair: P. Vicig	Chair: M. Ferrara	Chair: A. Laurent	
9:00-9:20	<p>Mustapha Reda Senouci, Faouzi Sebbak and Latifa Oukhellou</p> <p><i>Discounting Operators in Belief Functions Theory: Taxonomies and Operational Analysis</i></p>	<p>Dario Artuso and Gianluca Lax</p> <p><i>Automatic Assessment of Node Compromise Risks in Critical Infrastructures via a Multi-Stage Uncertainty Reduction Model using LLMs</i></p>	<p>Ilyas Sabeshuly, Sadok Ben Yahia and Assel Akzhalova</p> <p><i>Quantum-Inspired Fuzzy Committee Optimization for Blockchain Consensus</i></p>	
9:20-9:40	<p>Faouzi Sebbak and Mustapha Reda Senouci</p> <p><i>Efficient Exact Decomposition for Belief Functions Theory: A Commonality-Based Framework for Dynamic Reasoning</i></p>	<p>Giuseppe Caristi and Massimiliano Ferrara</p> <p><i>Neural Networks for Non-Convex Lattice Geometry: Extending Stoka's Theory with Machine Learning Application to Financial Risk and Economic Forecasting</i></p>	<p>Patrice Van de Velde</p> <p><i>Fuzzy Logic as the Orchestrator for Hybrid HPC-Quantum Architectures: Uncertainty Management in Hybrid HPC-Quantum Systems</i></p>	
9:40-10:00	<p>David Nieto-Barba and Sébastien Destercke</p> <p><i>On the specific commutativity with Bayesian conditioning of systematic aggregation rules for probability measures</i></p>	<p>Massimiliano Ferrara and Valeria Isgro</p> <p><i>Multi-Objective Optimization and Machine Learning Framework for Tax Risk Management: Theory and Applications</i></p>	<p>Patrice Van de Velde</p> <p><i>Fuzzy Logic for Error-Tolerant Quantum Computing in Combinatorial Optimization</i></p>	

10:00-10:20	Juan Carlos Gonzalez-Quesada, Francisco Javier Cabrerizo, Sergio Alonso, Enrique Herrera-Viedma and Ignacio Javier Perez	Osamu Takahashi, Annie Cuyt, Anthony O'Hare, Wen-Shin Lee and Massimiliano Ferrara	Ingo Schmitt	
	<i>A Blockchain-Inspired Trust Mechanism for Consensus Reaching in Online Social Networks</i>	<i>An Explainable Estimation Model for Financial Time Series</i>	<i>Boolean Algebra: Fuzzy Logic versus Quantum Logic</i>	
10:20-11:00	Coffee break			
11:00-12:00	Plenary: Luc de Raedt. Chair: D. Petturiti			
12:00-13:00	SS12: Interval uncertainty	SS04: Explainable AI - Part 2	Uncertainty quantification	
	Chair: M. Ceberio	Chair: C. Marsala	Chair: T. Denoeux	
12:00-12:20	Marek T. Malinowski	Qusai Khaled, Bahjat Mallak, Uzay Kaymak and Laura Genga	Vitor Martin Bordini, Sébastien Destercke and Benjamin Quost	
	<i>Fuzzy Extensions of SDEs and the Non-Overlap of Crisp and Fuzzy Solution Trajectories</i>	<i>Explainable Uncertainty Quantification for Wastewater Treatment Energy Prediction via Interval Type-2 Neuro-Fuzzy System</i>	<i>Cautious Self-Learning via Labelwise Uncertainty Quantification</i>	
12:20-12:40	Maria Letizia Guerra, Laerte Sorini and Luciano Stefanini	Toon Boeckling, Janne Cools, Antoon Bronselaer, Guy De Tré, Mieke Deschepper and Kirsten Colpaert	Gilles Mauris and Frédéric Pourraz	
	<i>Useful elements in common between gH-based extended-interval and probabilistic arithmetic</i>	<i>Constraint-Based Reliability Estimation in Sparse and Irregular Time Series</i>	<i>Expression of Asymmetric Measurement Uncertainty in a Limited Information Context: A Possibility Distribution Based Approach</i>	

12:40-13:00	Zahra Alijani and Babak Shiri	Luigi Lomasto, Nicola Lettieri, Delfina Malandrino, Rocco Zaccagnino, Roberto Abbruzzese, Donato Cappetta and Emilio Lanzara	Beatriz Sinova and Ignacio Cascos	
	<i>Incommensurate Fractional Recurrent Neural Networks for Sequential Time-Series Prediction</i>	<i>An Engineering Methodology for Verifying Compliance with the EU AI Act in Industrial AI Systems</i>	<i>Depths for interval-valued data</i>	
13:00-14:20	Lunch			
14:20- 16:20	SS19: Soft computing in data analysis - Part 2	SS13: Knowledge representation	Multivalued logic	
	Chair: P. Grzegorzewski	Chair: D. Lobo	Chair: A. Rico	
14:20-14:40	Maciej Romaniuk and Przemysław Grzegorzewski	Martina Daňková	Libor Behounek	
	<i>Bootstrap Methods for Interval-Valued Time Series</i>	<i>Optimal Transport based Dissimilarity of Fuzzy Association Rules</i>	<i>A Dual-Channel Semantics for Semiring-Valued Logics</i>	
14:40-15:00	Przemysław Grzegorzewski, Maha Moussa, Yan Sun and Said Elshafae	Mārtiņš Mārtiņš and Olga Grigorenko	Vilém Novák and Petra Murinová	
	<i>Uncertainty-Aware Repeated-Measures ANOVA for Interval-Valued Data with an Application to Longitudinal CT Tumor Imaging</i>	<i>Implicative Fuzzy Rules Systems in Water Quality Evaluation and Reasoning</i>	<i>Fractional quantifiers</i>	
15:00-15:20	Katarzyna Miś, Katarzyna Kaczmarek-Majer and Michał Baczyński	Roberto G. Aragón, Jesús Medina and Samuel Molina-Ruiz	Maxime Deforche, Guy De Tré, Paolo Fosci and Giuseppe Psaila	
	<i>Imprecision and Specificity of Fuzzy Linguistic Summaries</i>	<i>Multi-adjoint bonds as a mechanism to aggregate multi-adjoint concept lattices</i>	<i>On Veracity Handling in Document Stores: A Novel Technique Based on L-graded Logic Running on the J-CO Framework</i>	

15:20-15:40	Ansh Kapadia, Katarzyna Kaczmarek-Majer and Olgierd Hryniewicz	David Lobo and Pablo López-Molina	Ismail Baaj, Isabelle Bloch, Agnès Rico and Oliver Strauss	
	<i>Classification-aligned Quality Criteria for Fuzzy Linguistic Summaries</i>	<i>Bipolar max-product equations with ceiling negation</i>	<i>A Max–Min Neural Network Model for Propositional Fuzzy Logic</i>	
15:40-16:00	Marcin Ostrowski, Katarzyna Kaczmarek-Majer and Jose Maria Alonso-Moral	Maria Eugenia Cornejo Piñero, David Lobo and Jesús Medina	Michal Holcapek and Antonin Dvorak	
	<i>Consistency of Explanations in Evolving Supervised Learning Contexts</i>	<i>Stratified extended multi-adjoint logic programs</i>	<i>On Aristotelian opposition relations for fuzzy quantifiers determined by fuzzy measures</i>	
16:00-16:20	Antonio González Alves, Rafael Cabañas de Paz and Antonio Salmerón Cerdán	Manuel Ojeda-Hernandez and Domingo López-Rodríguez	Marwa Alali, Sebastian Cesario, Arnaud Castelltort, Marzieh Derakhshannia and Anne Laurent	
	<i>Efficient Causal Bounding Using Metropolis-Hastings Sampling</i>	<i>How to build a direct-optimal system from a complete system of graded attribute implications</i>	<i>Uncertainty-Aware Graph Integration: A Fuzzy Logic Approach with Comparative Analysis</i>	
16:20-16:50	Tea break			
16:50-18:30	SS25: Eusflat WG on Data Analysis and Machine Learning Chair: V. Bruni	Knowledge representation Chair: A. Capotorti	SS08: Fuzzy modelling and control Chair: J.M. Escaño	Forecasting Chair: V. Kreinovich
16:50-17:10	Motaz Ben Hassine	Jonas Karlsson, Alexander Karlsson, Sunith Bandaru and Ebru Turanoglu Bekar	Jana Špirková, Igor Kollár and Silvia Zelinová	Dalel Ayed Lakhel, Saoussen Bel Hadj Kacem, Moncef Tagina and Mohamed Ali Amara
	<i>Toward Optimized Explainable Clustering through Unified Cover and Itemset Reduction</i>	<i>Empirical Likelihood Stacking for Remaining Useful Life Estimation</i>	<i>Fuzzy BWM–Based Pension Sustainability Index</i>	<i>Anomaly Detection In Anticoagulant Drug Sales Data And Forecasting</i>

17:10-17:30	Giuliana Ramella and Luca Serino	Jirka Vomlel	Rainer Palm and Achim Lilienthal	Ehsan Yahyazadeh Rineh, Ruey Long Cheu, Olga Kosheleva and Vladik Kreinovich
	<i>Susceptibility of Skin Lesion CNN Classifiers to Increasing Gaussian Noise</i>	<i>Tucker unimodal decomposition of discrete probability distributions</i>	<i>Human-Robot Avoidance Under Uncertainty Using Fuzzy Approximation and Gaussian Sigma-Points</i>	<i>When Is a Safe Freeway Lane Change Possible? Relativity Principle Explains an Empirical Formula</i>
17:30-17:50	Vincenzo Vocca, Alessandro Bottino and Salvatore Cuomo	Ismail Baaj and Henri Prade	Prasad Anjali R. Chandadevi and S. P. Tiwari	Luca Vincenzo Ballestra
	<i>A Machine Learning Pipeline for Freight Transport Pricing</i>	<i>A possibilistic calculus of guarantees</i>	<i>Intracranial pressure controller for neurological condition using Fuzzy-PID controller</i>	<i>Medium-Range Temperature Forecasting: Neural Networks or a Linear Model?</i>
17:50-18:10	Lorella Fatone and Francesca Mariani	Marco Baioletti, Andrea Capotorti and Francesco Santini	William D. Chicaiza, Ramón A. Garcia and Juan M. Escaño	Branislav Rudic, Veronika Putz, Markus Pichler-Scheder and Dmitry Efrosinin
	<i>Hybrid Forecasting with the Heston Model and K-Nearest Neighbors</i>	<i>A Mixed Integer Programming Approach to Solve Probabilistic Argumentation Tasks</i>	<i>Neuro-Fuzzy Identification of Pneumatic Levitation Dynamics for Cyberattack-Aware Control Monitoring</i>	<i>Extended Predecessor Decoding for Coherent MAP Inference in Non-Linear Bayesian Models</i>
18:10-18:30	Alberto Sorrentino	Christiaan Venter and Marek Reformat	Pablo G. Camacho, Francisco Fuentes and Juan M. Escaño	David Adamczyk and Jan Hůla
	<i>Characterizing Non-Uniqueness in Inverse Problems: A Bayesian Analysis of Atmospheric LIDAR Data</i>	<i>Conceptual Blending via Pushouts with Fuzzy Semantic Resolution in Typed Graphs</i>	<i>Fuzzy Logic Controller for Room Temperature Regulation: A Co-Simulation Study with HOME I/O and MATLAB</i>	<i>Noise-Induced Training Collapse in Shortest Path Learning</i>

Thursday, 18 June 2026

	<u>Parallel 1</u>	<u>Parallel 2</u>	<u>Parallel 3</u>
09:00-10:20	SS01: Data mining and social networks - Part 1 Chair: J.A. Díaz García	SS11: Information fusion - Part 1 Chair: H. Bustince	SS14: Modelling uncertainty - Part 2 Chair: S. Montes
9:00-9:20	Motaz Ben Hassine <i>Reformulating Influence Maximization through Descriptive Clustering</i>	José Carlos R. Alcantud and Aoi Honda <i>More on the inclusion–exclusion integral: benchmark interaction operators and equivalence concepts</i>	Adán Rodríguez-Martínez, Agustina Bouchet and Susana Montes <i>Heuristic approach for the Travelling Salesman Problem under cost uncertainty</i>
9:20-9:40	Roberto Morcillo Jiménez, Jose María Rivas, Carlos Fernández Basso, Maria J. Martin-Bautista and M. Dolores Ruiz <i>Federated Learning for Language Models: From Large-Scale LLMs to Efficient SLMs</i>	Māris Krastiņš and Ivana Štajner-Papuga <i>A Note on Fuzzy Integrals for Modeling Efficiency of Regulatory Environment</i>	Lennart Bramlage and Cristóbal Curio <i>HIC SVNT DRACONES: Probing the Manifold Boundary for Post-Hoc Uncertainty Estimation</i>
9:40-10:00	Jiri Janecek, Petra Stevuliakova and Michal Mistecky <i>Can I Trust This Text?</i>	Giancarlo Lucca, Graçaliz Dimuro, Tiago da Cruz Asmus, Bruno Dalmazo, Rafael Berri, Renata Reiser, Adenauer Yamin, Humberto Bustince and Abreu Quevedo <i>Using the Sugeno integral with the adaptive Power Measure in the Fuzzy Reasoning Method</i>	Pedro Huidobro, Agustina Bouchet and Susana Montes <i>Similarity measures for interval-valued fuzzy sets induced by cardinalities</i>
10:00-10:20	José María Rivas, Roberto Morcillo-Jimenez, Carlos Fernandez-Basso, Maria J. Martin-Bautista and M. Dolores Ruiz <i>Federated Learning for Mortality Prediction under Extreme Class Imbalance and Service Heterogeneity</i>	Yurilev Chalco-Cano, Tiago Costa, Roberto Carlos Cabrales and Juan Carlos Figueroa García <i>A new technique for TOPSIS with interval-valued data</i>	Pelayo S. Dosantos, Agustina Bouchet, Irene Mariñas-Collado and Susana Montes <i>A new admissible interval order based on optimistic-pessimistic attitudes</i>
10:20-11:00	Coffee break		
11:00-12:00	Plenary: Bob Kowalski. Chair: B. Bouchon-Meunier		

12:00-13:00	SS05: Fuzzy implications Chair: M. Baczynski	SS11: Information fusion - Part 2 Chair: G. Pereira	Non-additive measures Chair: H. Prade
12:00-12:20	Ümit Ertuğrul, Funda Karaçal and Kübra Karacair <i>Methods for constructing implications on bounded posets</i>	Juan Baz, Irene Diaz and Susana Montes <i>Aggregation of random variables under weak stochastic orders</i>	Asma Ammar, Zied Elouedi and Pawan Lingras <i>A Possibilistic k-Modes Approach for Incremental Object Integration</i>
12:20-12:40	Isabel Aguiló, Pilar Fuster-Parra and J Vicente Riera <i>S-generalized pseudo-multidistances from fuzzy implications</i>	Rocío Cárdenas-Huamán, Yurilev Chalcano, Nicolás Zumelzu and Benjamin Bedregal <i>A new proposal of order admissible for fuzzy numbers support on nearest interval approximation</i>	Gabriele Carcassi, Christine Aidala and Tobias Thrien <i>What non-additive integral for ensemble spaces?</i>
12:40-13:00	Arnau Mir, Alejandro Mus and Juan Vicente Riera <i>(S,N)-Implications on Discrete Fuzzy Numbers via Admissible Orders</i>	Xabier Gonzalez-Garcia, Ľubomíra Horanská, Graçaliz Dimuro and Humberto Bustince <i>Aggregation Functions as a Replacement for Capacities in F-Integrals</i>	Thierry Denoeux <i>Combining Random Fuzzy Sets via Rejection Sampling</i>
13:00-14:20	Lunch		
14:20- 16:20	SS09: Foundations of fuzzy sets - Part 2 Chair: O. Valero	SS26: Uncertainty representation Chair: J. Medina	Decision making Chair: D. Ciucci
14:20-14:40	José Antonio Sanz and Mikel Sesma-Sara <i>A preliminary study on the use of dCF-integrals in Fuzzy Rule-Based Classification Systems for Class Imbalance</i>	Michinori Nakata, Hiroshi Sakai and Takeshi Fujiwara <i>A Value Based Approach in Probabilistic Approximations</i>	Jérémy Sanna, Florence Dupin de Saint-Cyr, Francis Faux and Romain Guillaume <i>FIRE: Fuzzy Information for Reconstructing Events</i>

14:40-15:00	Arnau Mir Fuentes and Oscar Valero	Fernando Chacón Gómez, María Eugenia Cornejo, Didier Dubois, Jesús Medina and Henri Prade	Gloria Lopiano, Andrea Campagner, Marco Pasqualini and Davide Ciucci
	<i>On admissible interval orders and partial metrics on discrete fuzzy numbers</i>	<i>A possibilistic framework for Formal Concept Analysis</i>	<i>Leveraging Causal Graphs to Improve LLM-Based Causal Reasoning: an Empirical Study</i>
15:00-15:20	Arnau Mir-Fuentes and Oscar Valero	Łukasz Sosnowski and Iwona Szymusik	Beldi Amal and Bounia Louenas
	<i>A duality relationship between similarity metrics and Mathew's partial metrics based on boundedness</i>	<i>Assessing Thyroid Disorder Susceptibility from Multi-Cycle Menstrual Data Using Granular Computing</i>	<i>Uncertainty Aware Contextual Recommendation under Possible Worlds Semantics</i>
15:20-15:40	Gabriel Jaume-Martin and Oscar Valero	María Eugenia Cornejo, Jesús Medina and Francisco José Ocaña	Luis Crespo
	<i>Representation of quasi-(pseudo-)metrics by means of fuzzy sets</i>	<i>A general fuzzy attribute implications theory based on Galois connection approaches</i>	<i>On the Calculation and Risk Analysis of Finite Interval Predictors</i>
15:40-16:00	Ksenija Varfolomejeva and Ingrida Uljane	Antonin Dvorak, Balasubramaniam Jayaram and Martin Stepnicka	Shih-Ni Prim, Jonathan P. Williams and Ryan Martin
	<i>Behaviour of Morphological Operators in L-powersets of Additive Groups Under Powerset Operators</i>	<i>Extensionality in Similarity-Based Reasoning Systems</i>	<i>Decision-making with possibilistic inferential models</i>
16:00-16:20	Ezgi Türkarslan and Younes Hamdani	Luca Anzilli	Esra Çakir
	<i>Penrose-Banzhaf Weighted Aggregation Operator with Sugeno-Weber t-norms for Intuitionistic Fuzzy Valued Neutrosophic Sets: A Spatial Multi-Criteria Decision Illustration</i>	<i>A fuzzy variational model for spatial innovation diffusion with uncertain inter-regional influence</i>	<i>Unveiling Continental Differences in AI-Supported Business Process Training: A Comparative Analysis via Intuitionistic Fuzzy V-PARS</i>
16:30-19:30	Excursion		
19:30--	Gala dinner and awards ceremony		

Friday, 19 June 2026

Parallel 1

Parallel 2

Parallel 3

09:00-10:20

SS01: Data mining and social networks - Part 2

SS11: Information fusion - Part 3

Fuzzy control

Chair: J.A. Díaz García

Chair: T. da Cruz

Chair: J.P. Carvalho

9:00-9:20	Andrea Morales-Garzón, Salvador Lopez-Joya, Miguel López-Pérez and Maria J. Martin-Bautista	Youssef Abdulghani, Christian Wagner and Stephen Broomell	Claudia Zucca, Jeroen Dortmans, Gergő Bocsardi and Uzay Kaymak
	<i>Evaluating Zero-Shot Vision–Language Models for Agri-Food Image Classification</i>	<i>Supervised Learning the Joint Weighted Average – Unique Solutions and How to Find Them</i>	<i>Fuzzy Causal Loop Diagrams: structure-informed diagrams enabling qualitative information for computational analysis of systems</i>
9:20-9:40	Noelia Rico, Pablo Pérez-Núñez, Evangelos Katis and Eleni Katsarou	Aoi Honda and José Carlos R. Alcantud	Joao Paulo Carvalho and Rui Ribeiro
	<i>Towards a Formal Representation of Curricula Data for Comparative Analysis</i>	<i>Revisiting Monotonicity of the Inclusion–Exclusion Integral: The Case of the Arithmetic–Mean Interaction Operator</i>	<i>Fuzzy Fingerprints in Limited Discrete Feature Spaces</i>
9:40-10:00	Salvador Lopez-Joya, J. Angel Diaz-Garcia, M. Dolores Ruiz and Maria J. Martin-Bautista	Claudio Matulich, Boris Barja, Benjamín Bedregal, Ronald Manríquez, Pablo Riul and Nicolás Zumelzu	Jose Manuel Venade, Miguel Martins, Joao Sousa and Susana Vieira
	<i>DNA-Based Emotion Sequences for Identifying Fake News</i>	<i>A Choquet-Integral-Based Environmental Damage Index</i>	<i>Transport Mode Detection: A Novel Framework for Mode Classification Using Machine Learning</i>
10:00-10:20	Gonzalo Jimenez, Andres Montoro-Montarroso, Jose A. Olivas, Jared D.T. Guerrero-Sosa, Francisco P. Romero and Jesus Serrano-Guerrero		Simão Fernandes, Rui Jorge Almeida, Frank Phillipson and Susana Vieira
	<i>Self-refining Retrieval-Augmented Generation for legal question answering via ensemble-based Small Language Model feedback</i>		<i>Transfer Learning with Graph Neural Networks for Cross-Scale Complexity in Vehicle Routing</i>

10:20-11:00	Coffee break		
11:00-12:00	Plenary: María Ángeles Gil. Chair: B. Vantaggi		
12:00-13:00	SS16: Multicriteria decision aiding Chair: U. Kaymak	Preference modelling Chair: L. Adam	SS04: Explainable AI - Part 3 Chair: J.M. Alonso
12:00-12:20	Atiyeh Sayadi, Jiri Mazurek and Ryszard Janicki	Loïc Adam, Aicha Ait Hammouch and Allel Hadjali	Victor F. Lopes de Souza, Christophe Marsala and Abdelhak Imoussaten
	<i>On Qualitative Pairwise Comparisons under Insufficient Information</i>	<i>Handling inconsistency caused by an inadequate preferential model choice in uncertain preferences elicitation</i>	<i>On Counterfactual Explanations and Adversarial Examples for Set-Valued Classifiers</i>
12:20-12:40	Brice Mayag	Maria Sartzetaki, Aristi Karagkouni and Dimitrios Dimitriou	Haomiaomiao Wang, Tomás E Ward and Lili Zhang
	<i>Enhancing the Yuka score: a 2-additive Choquet integral model for food additive risk assessment</i>	<i>Measuring Social Value of Large scale Investments under Uncertainty: A Fuzzy Social Cash Flow Framework</i>	<i>Comparative reversal learning reveals rigid adaptation in LLMs under non-stationary uncertainty</i>
12:40-13:00	Silvia Muzzioli and Lorenzo Vitale	Ana Tapia-Rosero, Marcelo Loor, Luz Marina Soto, Daniel Ochoa Donoso and Mercy Borbor-Cordova	Stefano Galiani, Davide Petturiti, Barbara Vantaggi and Luca Palmacci
	<i>Accounting for controversies in ESG scores: a Fuzzy TOPSIS approach</i>	<i>A Participatory Process Under Heterogeneous Conditions for Prioritizing Climate Change Adaptation and Mitigation Measures in the Context of the Galápagos Islands</i>	<i>Bayesian Per-Sample Confidence Estimation via Decoupled Ensemble Modeling</i>
13:00-14:20	Lunch		
14:20-15:00	Closing		