14th Conference of The European Society for Fuzzy Logic and Technology
July 21 - July 25, 2025, Riga
Program

Monday, July 21		
08.00-09.00	Registration	
09.00-09.30	**Opening,** *Alfa*	
09.30-10.30	Plenary talk, Alfa ***Oscar Cordón*** Title: Artificial Intelligence for Skeleton-Based Biological Profiling and Forensic Human Identification Chairman: Martin Štěpnička	
10.30-11.00	Coffee break	
	Mathematical Fuzzy Logic *Chairman: Tommaso Flaminio* *Alfa*	Information Fusion Techniques I *Chairman: Humberto Bustince* *Room 103*	Modeling Complex Dynamics: Adapting Analytical Tools for Diverse Scenarios *Chairman: Martina Dankova* *Room 203*
11.00-11.20	On Some Properties of Tabular Varieties of MTL-Algebras and Their Decidability *Stefano Aguzzoli and Matteo Bianchi*	Rule Base Combination in Federated Fuzzy Rule Learning *Asier Urío Larrea, Javier Andreu-Perez, Graçaliz Dimuro and Humberto Bustince*	Adaptive Fuzzy Level Set Algorithm for Bitcoin Realized Volatility Modeling and Forecasting *Leandro Maciel, Guilherme Freitas, Vinicius Nazato and Fernando Gomide*
11.20-11.40	Foulis Quantales and Complete Orthomodular Lattices *Jan Paseka, Michal Botur and Richard Smolka*	Modelling Sequential Dependent Data with Non-Commutative Aggregation Functions Obtained by Means of Pseudo-Automorphisms *Mikel Ferrero-Jaurrieta, Zdenko Takác, Lubomira Horanská and Humberto Bustince*	Unconstrained Parametrization of Proper Symplectic Decomposition for Learning Hamiltonian Dynamics *Jānis Bajārs, Dāvis Kalvāns and Dmitry Gromov*
11.40-12.00	Gödel Logic and Nested Regular Languages *Stefano Aguzzoli, Brunella Gerla and Sarah Nastasi*	Capturing Divergent ESG and Financial Priorities in Heterogeneous Investor Groups: An Opinion Dynamics-Based Multi-Criteria Decision-Making Approach *Ezgi Türkarslan and Christian Oliver Ewald*	Multiplication and Linear Interactivity *Petra Stevuliakova and Zahra Alijani*
12.00-12.20	On The Non-Falsity and Threshold Preserving Variants of MTL Logics *Francesc Esteva, Joan Gispert and Lluis Godo*	Global Pooling of Features in Convolutional Neural Networks through Moderate Deviation Based Aggregation Functions *Iosu Rodriguez-Martinez, Jana Špirková, Mikel Ferrero-Jaurrieta, Humberto Bustince and Javier Fernandez*	Differential Equations Driven by Fuzzy Measures - Existence and Uniqueness of Solution of Initial Value Problem *Miloslav Cisko*
12.20-12.40	Quantitative Lockean Thesis and its Logical Representation *Tommaso Flaminio and Lluis Subirana*	Learnable Fuzzy Measures for Enhancing F-Integrals in Deep Learning *Xabier Gonzalez-Garcia, Ľubomíra Horanská and Humberto Bustince*	Lower–Upper Bounds Approach to Solve Differential Equations: Theory, Universal Properties, and Numerical Methods *Zahra Alijani and Martina Dankova*
12.40-13.00	A First-Order Extension of Fuzzy Probability Logics *Libor Behounek*	Chatbots with Character - An implementation of Fuzzy Conversational Character Computing *Sophie Hundertmark, Ramon Christen and Edy Portmann* *Online*	
13.00-14.30	Lunch	

	Monday, July 21		
14.30-15.30	Plenary talk, Alfa *Irina Perfilieva* Title: Alexander Šostak's Groundbreaking Contributions to Fuzzy Mathematics Chairman: Olga Grigorenko		
15.30-16.30	**Round table** *Homage to Alexander Šostak*		
16.30-16.50	Coffee break		
	Homage to Alexander Šostak *Chairman: Olga Grigorenko* *Alfa*	Information Fusion Techniques II *Chairman: Tiago da Cruz Asmus* *Room 103*	Soft Methods in Statistical Inference and Data Analysis I *Chairman: Przemysław Grzegorzewski* *Room 203*
16.50-17.10	On Fuzzy Metrics Constructed from Metrics and Their Topology *Juan-José Miñana and Simona Talia*	Measuring Representativeness through Coverage Degrees and Indexes *Inmaculada Gutiérrez, J. Tinguaro Rodríguez, Xabier González, Daniel Gómez, Javier Montero and Humberto Bustince*	Modeling Treatment Effect with Fuzzy Data *Przemyslaw Grzegorzewski*
17.10-17.30	Some Metric-Like Structures and $\oplus$-Based Semi (Pseudo) Metric-Like *Şuara Onbaşıoğlu Altuhovs and Banu Pazar Varol*	Understanding Data Properties in the Mallows Model: Impact of Voter Count Variability *Mario Villar, Noelia Rico and Irene Diaz*	Resampling Approaches for Multivariate Random Interval Numbers *Maciej Romaniuk*
17.30-17.50	Fuzzy Equivalence Based Metrizable Space *Reinis Isaks and Olga Grigorenko*	Input Importance in Aggregation Theory by Means of Dependence Stochastic Orders *Juan Baz and Franco Pellerey*	A Hierarchical Representation of Fuzziness in Epistemic Fuzzy Data Analysis *Antonio Calcagni and Przemyslaw Grzegorzewski*
17.50-18.10	On Behavior of Fuzzy Morphological Operators Under the Morphisms from Category L-FSLin *Ksenija Varfolomejeva and Ingrīda Uljane*	Idempotence and Internality of Aggregations of Random Variables *Juan Baz, Irene Diaz and Susana Montes*	FLIRT--An Algorithm to Enhance a Regression Model with Federated Learning and GAN-Based Resampling *Przemysław Grzegorzewski and Maciej Romaniuk*
18.10-18.30	On Combination of T-Conorms for Aggregation of Data in Risk Assessments *Māris Krastiņš*		Implicational Quantifiers for Fuzzy Association Rule Mining: Theory and Application to Bipolar Disorder Data *Martina Dankova and Katarzyna Kaczmarek-Majer*
18.30-20.30	**Welcome party, House of Sceince**		

	Tuesday, July 22		
9.30-10.30	Plenary talk, Alfa ***Humberto Bustince*** Title: Possible Applications of Fuzzy Theory in Artificial Intelligence Chairman: Michal Holčapek		
10.30-11.00	Coffee break		
	Main Track / Interval Uncertainty *Chairman: Vladik Kreinovich* *Alfa*	Information Fusion Techniques III *Chairman: Graçaliz Dimuro* *Room 103*	Advancements and Applications of Fuzzy Theory and Fuzzy Control I *Chairman: Chia-Wen Chang* *Room 203*
11.00-11.20	A Study of the Fuzzy Differential Entropy *Zuzana Ontkovičová and Vicenç Torra*	Construction of Uninorms on Bounded Lattices: Augmenting the Flexibility of Choice *Ander Goñi Medrano, Marisol Gómez Fernández and Raúl Pérez Fernández*	On Approximation Properties of Stochastic Higher Degree F-Transform *Michal Holčapek, Linh Nguyen and Thi Minh Tam Pham*
11.20-11.40	How to Deal with High-Impact Low-Probability Events: Theoretical Explanation of the Empirically Successful Fuzzy-Like Technique *Juan Ulloa, Aaron Velasco, Olga Kosheleva and Vladik Kreinovich*	An Analysis of Discrete Fuzzy Negations on a Subset of Discrete Fuzzy Numbers and Their Applications to Discrete t-Subnorms *Manuel González-Hidalgo, Arnau Mir, Juan Vicente Riera, Daniel Ruiz-Aguilera and All Authors*	A New Adaptive Dynamic Window Method Combined with Fuzzy Neural Network in Complex Dynamic Environment *Xuan-Wen Chen, Shun-Feng Su and Mei-Yung Chen*
11.40-12.00	How to Share a Success, How to Share a Crisis, and How All This Is Related to Fuzzy *Olga Kosheleva and Vladik Kreinovich*	Uncertainty Fusion in Generalizations of Fuzzy Sets Using Distance Transformations *Laura De Miguel and Carlos Lopez-Molina*	Applications of Kolmogorov Arnold Networks *Lan-Shin Jiang, Shun-Feng Su and Mei-Yung Chen*
12.00-12.20	A Natural Extension of F-Transform to Triangular and Triangulated Domains Necessitates the Use of Triangular Membership Functions *Hana Zamecnikova, Irina Perfilieva, Olga Kosheleva and Vladik Kreinovich*	Insights into the q Exponent in PM with Choquet-Integrals for Classification *Giancarlo Lucca, Tiago da Cruz Asmus, Cedric Marco-Detchart, Helida Santos, Graçaliz Dimuro, Humberto Bustince, Adenauer Yamin, Renata Reiser, Alice Pintanel and Heloisa Camargo*	Dynamic Simplified Decomposed Fuzzy Systems and Its Modeling Effects Analysis *Wei-Chen Lee and Shun-Feng Su*
12.20-12.40	A new approach to interval clustering using ordering degrees *Mohammad Ojaghi, Susana Montes and Irene Mariñas-Collado*	[a,b]-FG-Functionals: A Generalization of Sugeno Integral with Floating Domains in Arbitrary Closed Real Intervals *Tiago da Cruz Asmus, Giancarlo Lucca, Cedric Marco-Detchart, Javier Fernandez, Humberto Bustince and Graçaliz Dimuro*	PSO-Based Framework for Autonomous Driving in Dynamic Environments *Zhen-Yu Zhang, Shun-Feng Su and Mei-Yung Chen*
12.40-13.00	On the definition of arithmetic operations for intervals under the Xu and Yager order *Adan Rodriguez-Martinez, Agustina Bouchet and Susana Montes*		Dimension Reduction Methods for Regression with Interval-Valued Data *Chen-Chia Chuang, Ping-Yi Yu, Yong-Cian Jheng and Jin-Tsong Jeng*
13.00-14.30	Lunch		

	Tuesday, July 22		
14.30-15.30	**Plenary talk, Alfa** ***Katarzyna Kaczmarek-Majer*** Title: The Role of Fuzzy Linguistic Summaries - New Methods and Challenges Chairman: Przemysław Grzegorzewski		
15.30-16.30	**Round table** *60 Years of Fuzzy Sets: What Do We Have and What Is Next?*		
16.30-16.50	Coffee break		
	Main Track *Chairman: Svetlana Asmuss* *Alfa*	Soft Computing, Uncertainty and Imprecision in Image Processing *Chairman: Irina Perfilieva* *Room 103*	Advancements and Applications of Fuzzy Theory and Fuzzy Control II *Chairman: Shun-Feng Su* *Room 203*
16.50-17.10	An Enhanced Multi Criteria Decision Making Model for Delivery Locker Placement Using TOPSIS and Einstein Operators in a Pythagorean Fuzzy Framework *Gvantsa Tsulaia*	Environmental Semantic Mapping and Obstacle Avoidance System Using Lidar and RGB-D Images *Shu-Yin Chiang and Shin-En Huang*	Designing an LSTM-Based Action Recognition System with Limited Data *Chia-Wen Chang, Chin-Wang Tao and Song-Shyong Chen*
17.10-17.30	Robust Decisions: Bridging the Quantitative-Qualitative Gap *Sébastien Destercke and Agnes Rico*	Evolved Image Filtering Using Aggregation Operators *Carlos Lopez-Molina and Laura De Miguel*	Energy-Saving Technology with Distributed Intuitionistic Fuzzy Sets for Internet of Things Systems *Jau-Yang Chang and Ching-Chieh Feng*
17.30-17.50	A Fuzzy Logic Framework for Decision-Making Support Using a Variant of TSK Models *David Muñoz-Valero, Juan Moreno Garcia, Julio Alberto López-Gómez, Enrique Adrian Villarrubia-Martin and Luis Jimenez-Linares*	Laplacian-Guided Keypoint Selection for Efficient Fuzzy Transform Approximation in Bayesian Networks *Jan Mrógala and Irina Perfilieva*	Study on the Explainable AI of Temporal Convolutional Network *Hsuan-Jui Chang, Chen-Chia Chuang, Justin Lin and Jin-Tsong Jeng*
17.50-18.10	Fuzzy Clustering-Based Aggregation for Credit Risk Assessment *Pavels Orlovs*	Improving Early Warnings of Flash Floods Using Radar Images and AI *Iñaki Pérez del Notario López, Pedro Oria Iriarte and Humberto Bustince Sola*	Enhanced AML Transaction Monitoring via Fuzzy Equivalence in Rule-Based Systems *Igor Rodin and Jelizaveta Jelinska*
18.10-18.30	A Few Notes to the Fuzzy Best-Worst Method *Jana Špirková and Igor Kollár*	Comparative Study of Choquet-Inspired Aggregation Functions for Dimensionality Reduction in Noisy Images *Joaquin Arellano, Humberto Bustince, Francisco Javier Fernandez, Cedric Marco-Detchart, Graçaliz Dimuro and Benjamin Bedregal*	Interval Generalized Kernel-Based Fuzzy-Possibilistic C-Means Clustering Algorithm *Yung-Ju Cheng, Yi-Hsing Chien and Wei-Yen Wang*
18.30-20.00	EUSFLAT Assembly, Alfa		

	Wednesday, July 23		
9.30-10.30	Plenary talk, Alfa **Bernard De Baets** Title: It's All Convolution, Stupid! Chairman: Vladik Kreinovich		
10.30-11.00	Coffee break		
	Main Track *Chairman: Martin Štěpnička* *Alfa*	New Contexts in Aggregation Theory I *Chairman: Bernard De Baets* *Room 103*	Soft Methods in Statistical Inference and Data Analysis II *Chairman: Katarzyna Kaczmarek-Majer* *Room 203*
11.00-11.20	Functors from Fuzzy Structures Categories into Category of Fuzzy Topological Spaces with Continuous Fuzzy Relations *Jiří Močkoř*	Ontology Aggregation with Maximum Consensus Based on a Fuzzy Multi-Criteria Group Decision Making Method *Lydia Castronovo, Giuseppe Filippone, Mario Galici, Gianmarco La Rosa and Marco Elio Tabacchi*	Fuzzy Events Require a Strengthened Form of Independence *Kamila Houšková and Mirko Navara*
11.20-11.40	Bipolarity on Bounded Lattices *Martin Kalina, Biljana Mihailović and Mirjana Štrboja*	An Axiomatic Study of the Properties Satisfied by Methods for Ranking the Elements of a Poset *Ignacio Montes, Raúl Pérez-Fernández and Bernard De Baets*	A Proposal for Measuring Polarization in the Context of Ordinal Scales *José Luis García-Lapresta, Daniel Gómez and Juan Antonio Guevara*
11.40-12.00	From Lower Boundary Approach to Partial Fuzzy Logics to the Upper Boundary One and Back *Martin Stepnicka and Nhung Cao*	Goodness-of-Fit Tests to Location-Scale Families Based on OWA Functions *Marina Iturrate-Bobes, Ignacio Montes and Raúl Pérez-Fernández*	Is There Something Fuzzy in Hypotheses Testing? *Ivana Stajner-Papuga and Aleksandar Takaci*
12.00-12.20	Locally Modified Multivariate F^m-Transform: Theoretical Background and Possible Applications *Martins Kokainis and Svetlana Asmuss*	Decomposition of Non-Commutative Associative Functions via Non-Commutative Ordinal Sum *Andrea Mesiarová-Zemánková and Juraj Kalafut*	Weighted Quantile Approach to Time Series Forecasting Using Fuzzy-Probabilistic Inference Systems *Michal Holcapek, Nhung Cao, Radek Valasek, Nicolas Madrid, Tomas Tichy and David Nedela*
12.20-12.40	Kernel Operators on Trellises *Inma P. Cabrera, Pablo Cordero, Bernard de Baets, Emilio Muñoz-Velasco and Manuel Ojeda-Hernández*	Decomposition Integrals Constrained by Linear Inequalities *Adam Šeliga and Timur Kramár*	On the Consistency of Fuzzy Linguistic Summaries with Multiple Qualifiers *Katarzyna Miś, Katarzyna Kaczmarek-Majer and Michał Baczyński*
12.40-13.00	Visual Comparison of Inclusion Measures *Patryk Żywica, Anna Stachowiak and Joanna Siwek*	A New Perspective on the Discrete Choquet Integral and OWA Operator *Barbora Hennelová, Michał Boczek, Ondrej Hutník and Jaroslav Šupina*	Alpha-Maxmin Classification with an Ensemble of Structural Restricted Boltzmann Machines *Davide Petturiti and Maria Rifqi* *Online*
13.00-14.30	Lunch		
14.30-21.30	**Excursions**		

	Thursday, July 24		
9.30-10.30	Plenary talk, Alfa ***Ulrich Bodenhofer*** Title: AI for Good: Machine Learning in Medicine and Healthcare – Basics, Use Cases and Prospects Chairman: Bernard de Baets		
10.30-11.00	*Coffee break*		
	Main Track *Chairman: Michal Holčapek* *Alfa*	*Fuzzy Implication Functions* *Chairman: Michal Baczynski* *Room 103*	*Student works* *Room 203*
11.00-11.20	Direct Compatible Copulas *Roberto Ghiselli Ricci*	Implication construction methods on bounded lattices *Ümit Ertuğrul, Funda Karaçal and Kübra Karacair*	A Soft Clustering Method Derived from the Probabilistic Interpretation of Fuzzy C-Means *Davide Cazzorla and Corrado Mencar*
11.20-11.40	Multi-Metric Genetic Optimization of Ordinal Sums of Conjunctive and Disjunctive Functions in Classification Tasks *Erika Bombarová, Miroslav Hudec and Marek Reformat*	On the threshold-based generalization of the Modus Ponens syllogism *Michal Baczynski and József Dombi*	Verification of Validity of Generalized Logical Syllogisms Applying the Contraposition *Karel Fiala and Petra Murinová*
11.40-12.00	Incomplete Preference Relation Analysis for MgGDM System *José Ramón Trillo, Juan Carlos Gonzáles-Quesada, Francisco Mata, Ignacio Javier Pérez and Francisco Javier Cabrerizo*	On a generalization of the F-chains based construction of fuzzy implication functions *Raquel Fernandez-Peralta and Juan Vicente Riera*	On Modular Fuzzy Equivalences, Aggregation and Modular Pseudo-Metrics *Gabriel Jaume-Martin, Maria del Mar Bibiloni-Femenias and Oscar Valero*
12.00-12.20	Can Fuzzy Fingerprints Really Make LLMs More Interpretable? *Joao Paulo Carvalho and Rui Ribeiro*	Generalized Quantifiers, Logical Syllogisms and Applications *Chairman: Vilém Novák* *Room 103*	
		Using Intermediate Quantifiers to Reduce the Number of Linguistic Rules for Diagnosing Mood Disorders from Incomplete Data *Lucas Dantas de Oliveira and Peter Sussner*	
12.20-12.40	A First Approach to Fuzzy Logic Applied to the Explainability of Deep Learning Models by Layers *Arturo Fernández-Mora, Juan Moreno-Garcia, David Muñoz-Valero and Luis Martínez*	Verification of Validity of Logical Syllogisms Generated by Cube of Opposition using Extended Peterson's Rules *Petra Murinová and Vilém Novák*	
12.40-13.00	Embedding-Based Similarity Measure for IVFS *Sara Suarez-Fernandez, Agustina Bouchet, Susana Diaz-Vazquez and Susana Montes*	Graded Hexagon of Opposition with New Forms of Intermediate Quantifiers *Petra Murinová and Vilém Novák*	
13.00-14.30	*Lunch*		

	Thursday, July 24		
	Representing and Managing Uncertainty I *Chairman: Jesús Medina* Alfa	New Contexts in Aggregation Theory II *Chairman: Raúl Pérez-Fernández* Room 103	Fuzzy Relations and Applications I *Chairman: Oscar Valero* Room 203
14.30-14.50	On direct systems of implications with graded attributes *Manuel Ojeda-Hernandez and Domingo López-Rodríguez*	Exploring Divisibility and Related Properties of T-Norms on Finite Lattices *Juraj Kalafut*	Generating Modular Relaxed Pseudo-Metrics by Aggregation *Maria del Mar Bibiloni-Femenias, Gabriel Jaume-Martin and Oscar Valero*
14.50-15.10	Credibility of decision rules as a tool for decision-making in fuzzy rough set theory *Fernando Chacón-Gómez, M. Eugenia Cornejo Piñero and Jesús Medina*	A General Framework for Measuring Chord Distances Using Aggregation Functions *Kristína Hurajová*	Prostate Cancer Diagnosis: A Geometric Approach Based on the Beer Index *Miquel Angel Serra-Moll, Arnau Mir-Fuentes, Antoni Burguera Burguera and Oscar Valero*
15.10-15.30	Studying the structure generated by subsets of ϕ-indexes of inclusion *Nicolas Madrid, Manuel Ojeda-Aciego and Eloisa Ramirez-Poussa*	On the Existence of Non-Trivial Monometrics on Betweenness Relations: Some Sufficient Conditions *Kavit Nanavati, Megha Gupta and Balasubramaniam Jayaram* *Online*	On the Impossibility of Universally Transforming Similarity Metrics into Partial Metrics *Arnau Mir Fuentes and Oscar Valero*
15.30-15.50	Computing minimal solutions of fuzzy relation equations with incremental quasi-polynomial delay *David Lobo, Jesús Medina, Timo Camillo Merkl and Reinhard Pichler*	Multidimensional Aggregation and Social Poverty *Marta Cardin* *Online*	On Metric Aggregation Functions and Fuzzy Decision-Making *Miquel Angel Serra-Moll, Onofre Martorell-Cunill, Carles Mulet-Forteza and Oscar Valero*
15.50-16.10	OFWA operators for multi-criteria decision making *Roberto G. Aragón, Jesús Medina and Samuel Molina-Ruiz*	Uniqueness and Reconstruction of Strict T-Norms Known Only Above a Level Curve and Different Curves *Gabriel Bauza-Llompart, Raquel Fernandez-Peralta and Marc Munar* *Online*	Prioritized preference aggregation for non-uniform groups of agents *Janusz Kacprzyk and Slawomir Zadrozny*
16.10-16.30	*Coffee break*		
19.00-23.00	***Conference dinner***		

	Friday July 25		
9.30-10.30	Plenary talk, Alfa ***Andris Ambainis*** Title: Mathematical Ideas in Quantum Algorithms Chairman: Svetlana Asmuss		
10.30-11.00	*Coffee break*		
	Main Track *Chairman: Christophe Marsala* Alfa	Representing and Managing Uncertainty II *Chairman: David Lobo* Room 103	*The Role and Value of Information in Decision Making* *Chairman: Dmitry Gromov* *Room 203*
11.00-11.20	About T-Norms and T-Conorms on New Preorders in Type-2 Fuzzy Sets *Pablo Hernandez-Varela, Francisco Javier Talavera, Carmen* *Torres-Blanc, Susana Cubillo, Pedro Huidobro and Jorge* *Elorza*	Idea Management and Game Theory with Uncertain Payoffs *Inese Bula, Elīna Miķelsone, Līga Peiseniece, Astrīda* *Rijkure, Aivars Spilbergs and Inga Uvarova*	Pollution Control under Uncertainty: Integrating Optimal Control Theory and Value of Information *Dmitry Gromov, Prateek Verma, Amelie Luhede and Thorsten Upmann*
11.20-11.40	A Decision-Making Framework Based on Intersection and Similarity Measures for Type-2 Fuzzy Sets *Pedro Huidobro, Francisco Javier Talavera, Susana Cubillo,* *Carmen Torres-Blanc, Pablo Hernandez-Varela and Jorge Elorza*	Federated Learning with Strategy for Uncertainty Management in Machine Learning based on Interval-Valued Fuzzy Sets and Choquet Integral for Medical Diagnostic *Barbara Pękala, Jarosław Szkoła and Krzysztof Dyczkowski*	Extending the Concept of the Value of Information to Fuzzy Decision-Making with Expert Systems *Martiņš Zemlītis, Svetlana Asmuss, Dmitry Gromov, Olga Grigorenko*
11.40-12.00	Towards Probabilistic Entropies for Interval Valued Fuzzy Sets *Christophe Marsala and Bernadette Bouchon-Meunier*	GranFRRI: Improving Fuzzy Rough Rule Induction with Granular Approximations *Henri Bollaert, Marko Palangetić, Chris Cornelis, Salvatore* *Greco and Roman Slowinski*	Fuzzy Logic-Based Mathematical Structures in Classification Problem *Valerijs Mihailovs*
12.00-12.20	Some Results on Fuzzy Basis of Fuzzy Lie Algebras *Giuseppe Filippone, Mario Galici, Gianmarco La Rosa and* *Marco Elio Tabacchi*	New Approach to the Uncertainty Degree for ϕ -Intuitionistic Values *Matúš Ďubek*	
12.20-12.50	Closing		
13.00-14.30	*Lunch*		