# LINZ 2004

# 25th Linz Seminar on Fuzzy Set Theory

# **Mathematics of Fuzzy Systems**

Bildungszentrum St. Magdalena, Linz, Austria February 3 - 7, 2004

# **PROGRAM**

Tuesday, February 3, 2004		
09:00–10.00 am	G. LITVINOV: Dequantization of mathematics, idempotent semirings and fuzzy sets	
10:00–10:30 am	D. DUBOIS, H. PRADE, P. SMETS: A definition of subjective possibility	
	10:30 am Coffee Break	
11:00–11:30 am	JL. MARICHAL: k-intolerant capacities and Choquet integrals	
11:30–12:00 am	P. MEYER, M. ROUBENS: Ordinal sorting in the presence of interacting points of view: TOMASO	
12:00–12:30 pm	R. A. MARQUES PEREIRA, S. BORTOT: Choquet measures, Shapley values, and inconsistent pairwise comparison matrices: an extension of Saaty's A.H.P.	
	12:30 pm Lunch	
02:30-03:30 pm	P. HAJEK: Fuzzy predicate logic – a survey	
03:30-04:00 pm	S. GOTTWALD: Fuzzy relation equations and fuzzy control – some old and some new ideas	
	04:00 pm Coffee Break	
04:30–05:00 pm	I. PERFILIEVA: Solvability and approximate solvability of a system of fuzzy relation equations from functional point of view	
05:00–05:30 pm	V. NOVAK: The logic and algebra of fuzzy if-then rules	
05:30-06:00 pm	P. VOJTAS: Fuzzy deductive and inductive systems with similarity based unification	

#### Wednesday, February 4, 2004 09:00-10:00 am E. P. KLEMENT, R. MESIAR, E. PAP: Triangular norms as special semigroups 10:00-10:30 am B. DE BAETS, H. DE MEYER: Stable commutative copulas in pairwise comparison models 10:30 am Coffee Break 11:00-11:30 am K. MAES, B. DE BAETS: De Morgan triplets in the theory of fuzzified normal forms 11:30-12:00 am A. KOLESAROVA: A characterization and composition of quasi-copulas 12:00-12:30 pm D. DUBOIS, H. PRADE: On different ways of ordering conjoint evaluations 12:30 pm Lunch 02:30-03:30 pm S. E. RODABAUGH: Point-set lattice-theoretic (poslat) topology: A (partly) categorical perspective 03:30-04:00 pm A. SOSTAK: On many-valued topologies on L-powersets of many-valued sets 04:00 pm Coffee Break 04:30-05:00 pm A. FRASCELLA, C. GUIDO: Structured lattices and ground categories of L-sets 05:00-05:30 pm T. KUBIAK: Semicontinuous L-real valued functions 05:30-06:00 pm J. M. BARONE: Fuzzy filter functors revisited: A 2-categorical overview

## Thursday, February 5, 2004

09:00–10:30 am	U. HÖHLE: Fuzzy sets and sheaves
	10:30 am Coffee Break
11:00–11:30 am	L. N. STOUT: A categorical fabric for fuzzy predicate logic
11:30–12:00 am	J. GUTIERREZ GARCIA: Order-reversing involutions and residuated lattices
	12:00 am Lunch
01:30–7:00 pm	EXCURSION: voestalpine, Lentos

08:00 pm Dinner

# Friday, February 6, 2004

09:00–10:00 am	M. A. GIL: Fuzzy random variables: Development and state of the art
10:00–10:30 am	V. KRÄTSCHMER: Integrals of random fuzzy sets
	10:30 am Coffee Break
11:00–11:30 am	R. SCOZZAFAVA: A bridge between fuzzy set theory and coherent conditional probabilities (I)
11:30–12:00 am	G. COLETTI: A bridge between fuzzy set theory and coherent conditional probabilities (II)
12:00–12:30 pm	T. KROUPA: Copulas and characterization of T-product possibility measures
12:30-01:00 pm	J. KORTELAINEN: Modifying L-sets: Two views based on level-sets
	01:00 pm Lunch
02:30–03:30 pm	01:00 pm Lunch  M. NAVARA, P. PTAK: Regular measures on tribes of fuzzy sets
02:30–03:30 pm 03:30–04:00 pm	
1	M. NAVARA, P. PTAK: Regular measures on tribes of fuzzy sets
1	M. NAVARA, P. PTAK: Regular measures on tribes of fuzzy sets M. GRABISCH: Capacities on lattices
03:30–04:00 pm	M. NAVARA, P. PTAK: Regular measures on tribes of fuzzy sets  M. GRABISCH: Capacities on lattices  04:00 pm Coffee Break

### Saturday, February 7, 2004

09:00–09:30 am	J. K. MATTILA: Construction of compositional modifiers generated by n-ary functions
09:30-10:00 am	F. KLAWONN: The concept of independence in the context of similarity relations
10:00–10:30 am	U. BODENHOFER, B. DE BAETS, J. FODOR: A review of construction and representation results for fuzzy weak orders
	10:30 am Coffee Break
11:00–11:30 am	M. SHIMODA: Fuzzy group in a natural interpretation
11:30–12:00 am	R. BISDORFF: On a natural fuzzification of Boolean logic
12:00–12:30 pm	M. DEMIRCI: Vague ordered fields: Towards an axiomatic theory of vague real line
12:30–01:00 pm	M. TAKACS: Residuum-based approximate reasoning with distance-based uninorms

01:00 pm Lunch