

LINZ
2010

31st Linz Seminar on Fuzzy Set Theory

**Lattice-Valued Logic
and its Applications**

Bildungszentrum St. Magdalena, Linz, Austria
February 9 - 13, 2010

PROGRAM

Monday, February 8, 2010

19:00–22:00 *Get together*

Tuesday, February 9, 2010

- 09:00–10:00 **Nikolaos Galatos**
Residuated lattices with applications to logic
- 10:00–10:30 **Rostislav Horčík**
Cancellative residuated lattices arising on 2-generated submonoids of natural numbers
- 10:30–11:00 *Coffee break*
- 11:00–11:30 **Sándor Jenei**
On the structural description of involutive FL_e -algebras
- 11:30–12:00 **Yoshihiro Maruyama**
Fuzzy topology and Łukasiewicz logics from the viewpoint of duality theory
- 12:00–12:30 **Debajit Hazarika, D. K. Mitra**
On some generalized L -valued uniform structure
- 12:30–13:30 *Lunch*
- 14:30–16:00 **Ulrich Höhle**
Quantaloids as categorical basis for many valued mathematics
- 16:00–16:30 *Coffee break*
- 16:30–17:00 **Sergejs Solovjovs**
Powerset operator foundations for categorically-algebraic fuzzy set theories
- 17:00–17:30 **Jeffrey T. Denniston, Austin Melton, Stephen E. Rodabaugh**
Lattice-valued predicate transformers and interchange systems

Wednesday, February 10, 2010

- 09:00–10:00 **George Metcalfe**
Decidability for lattice-valued logics
- 10:00–10:30 **Petr Cintula, Carles Noguera**
Logics with a (lattice) disjunction and their completeness properties
- 10:30–11:00 *Coffee break*
- 11:00–11:30 **Siegfried Gottwald**
On Klaua's first approach toward graded identity and graded membership in set theory
- 11:30–12:00 **Libor Běhounek**
Extending Cantor-Łukasiewicz set theory with classes
- 12:00–12:30 **Vilém Novák, Martin Dyba**
EQ-logics: fuzzy logics based on fuzzy equality
- 12:30–13:30 *Lunch*
- 14:30–15:00 **Yang Xu, Jun Liu, Da Ruan**
Lattice-valued algebra and logic with potential applications in linguistic valued decision making
- 15:00–15:30 **Cosimo Guido, Maria Emilia Della Stella**
Associativity, commutativity and symmetry in residuated structures
- 15:30–16:00 **Milan Petrík, Peter Sarkoci**
Web-geometric approach to totally ordered monoids
- 16:00–16:30 *Coffee break*
- 16:30–17:00 **Erich Peter Klement, Radko Mesiar**
Conjunctors with special properties
- 17:00–18:00 **Round table I**

Thursday, February 11, 2010

- 09:00–10:00 **Radim Belohlavek**
Matrices over residuated lattices, related structures, and applications
- 10:00–10:30 **Irina Perfilieva**
Galois connections in semilinear spaces
- 10:30–11:00 *Coffee break*
- 11:00–11:30 **Rastislav Potocký, Milan Stehlík**
On convergences of lattice valued random elements with applications
- 11:30–12:00 **Funda Karacal, M. Nesibe Kesicioğlu**
T-Actions on Bounded Lattices
- 12:30–13:30 *Lunch*
- 14:30–22:00 *Excursion to Kremsmünster, Seminar Dinner*

Friday, February 12, 2010

- 09:00–10:00 **Francesc Esteva**
Modalities and many-valued: modelling uncertainty measures and similarity-based reasoning and application to fuzzy description logics
- 10:00–10:30 **Marco Cerami, Francesc Esteva, Félix Bou**
Decidability of some problems in a description logic over infinite-valued product logic
- 10:30–11:00 *Coffee break*
- 11:00–11:30 **Didier Dubois, János Fodor, Henri Prade**
Conditional measures: An alternative to Cox functional equation
- 11:30–12:15 **Siegfried Weber**
Measure-free conditioning in MV-chains and additive measures
- 12:30–13:30 *Lunch*
- 14:30–15:30 **Joseph Y. Halpern**
Intransitivity and vagueness
- 15:30–16:00 **Thomas Vetterlein**
Possibilistic logic for graded properties
- 16:00–16:30 *Coffee break*
- 16:30–17:00 **Bart Van Gasse, Chris Cornelis, Glad Deschrijver, Etienne Kerre**
Interval-valued logics
- 17:00–18:00 **Round table II**

Saturday, February 13, 2010

- 09:00–10:00 **Christian G. Fermüller**
Vagueness and degrees of truth: Scenes from a troubled marriage
- 10:00–10:30 **João Marcos**
The value of the two values
- 10:30–11:00 *Coffee break*
- 11:00–11:30 **Petr Hájek**
Mathematical fuzzy logic and axiomatic arithmetic
- 11:30–12:00 **Matthias Baaz, Oliver Fasching**
The impact of adding a constant
- 12:30–13:30 *Lunch*