

LINZ '96 – 17th Linz Seminar on Fuzzy Set Theory  
*Fuzzy Sets, Logics, and Artificial Intelligence*

Jointly with WG1 and WG3 of the EU COST Action 15  
*Many-Valued Logics for Computer Science Applications*

February 20-24, 1996

Bildungszentrum St. Magdalena, Schatzweg 177, A-4040 Linz, Austria

## PROGRAM

Tuesday, February 20, 1996

**09:00-10:30 Session *Multiple-valued Logic 1***

- 09:00 U. Höhle (Wuppertal, Germany)  
*Monoidal logic and Poincaré's paradox*
- 10:00 J. K. Mattila (Lappeenranta, Finland)  
*On intensional logics with several operators*

10:30-11:00 Coffee Break

**11:00-12:30 Session *Multiple-valued Logic 2***

- 11:00 M. K. Chakraborty, S. Basu (Calcutta, India)  
*Introducing grade to some metalogical notions*
- 11:45 G. Gerla (Salerno, Italy)  
*Closure operators for fuzzy logics*

12:30-14:00 Lunch Break

**14:00-14:45 Session *Multiple-valued Logic 3***

- 14:00 L. Boldrin, C. Sossai (Padova, Italy)  
*An intuitionistic view of possibilistic logic*

**14:45-16:00 Session *Algebra 1: Fuzzy sets***

- 14:45 J. C. Fodor (Budapest, Hungary)  
*Operations on the unit interval: some recent results*
- 15:30 W. Traczyk (Warsaw, Poland)  
*Qualitative models with fuzzy values*

16:00-16:30 Coffee Break

**16:30-17:45 Session *Algebra 2: MV-algebras***

- 16:30 C. Drossos (Patras, Greece)  
*A many-valued generalization of the ultrapower construction*
- 17:15 P. Karazeris (Patras, Greece)  
*The Boolean algebra freely generated by an MV-algebra*

## Wednesday, February 21, 1996

### 09:00-10:30 Session *Multiple-valued Logic 4*

09:00 V. Novák (Ostrava, Czech Republik)  
*Formal theories in fuzzy logic*

09:45 D. Butnariu (Haifa, Israel), E.P. Klement (Linz, Austria), S. Zafrany (Haifa, Israel)  
*Fuzzy propositional logics based on Frank's t-norms*

10:30-11:00 Coffee Break

### 11:00-12:30 Session *Multiple-valued Logic 5*

11:00 D. M. Gabbay (London, UK)  
*How to make your logic fuzzy (Fibred semantics and the weaving of logics)*

12:00 S. Lehmke (Dortmund, Germany)  
*A resolution-based axiomatisation of 'bold' propositional fuzzy logic*

12:30-14:00 Lunch Break

### 14:00-15:30 Session *Similarity 1*

14:00 F. Esteva, P. Garcia, L. Godo (Bellaterra, Spain)  
*On the multi-modal and many-valued approaches to similarity-based approximate reasoning*

14:45 F. Klawonn (Braunschweig, Germany)  
*The role of similarity in fuzzy logic*

15:30-16:00 Coffee Break

### 16:00-17:30 Round Table 1

*The role of multiple-valued logic in knowledge representation and approximate reasoning*

## Thursday, February 22, 1996

### 09:00-10:30 Session *Similarity 2*

09:00 H. Thiele (Dortmund, Germany)  
*On similarity based fuzzy clusterings*

10:00 L. Valverde (Palma de Mallorca, Spain)  
*Similarity reasoning*

10:30-11:00 Coffee Break

### 11:00-12:30 Session *Similarity 3*

11:00 D. Mundici (Milano, Italy)  
*Partitions in many-valued logic and if-then rules*

12:00 D. Boixader (Sant Cugat de Vallès, Spain), J. Jacas (Barcelona, Spain)  
*T-indistinguishability operators and approximate reasoning via CRI*

12:30-13:30 Lunch Break

13:30 Excursion

## Friday, February 23, 1996

### 09:00-10:30 Session *Prioritized knowledge bases*

- 09:00 G. Brewka (Wien, Austria)  
*Logic programs with dynamic preference information*
- 09:45 S. Benferhat, D. Dubois, H. Prade (Toulouse, France)  
*Inconsistency-tolerant inference in prioritized knowledge bases*

10:30-11:00 Coffee Break

### 11:00-12:30 Session *Inconsistent and incomplete Information*

- 11:00 P. Besnard (Rennes, France)  
*Logical approaches to reasoning from inconsistent information*
- 11:45 E. Orłowska (Warsaw, Poland)  
*Information frames and information algebras: a duality theory*

12:30-14:00 Lunch Break

### 14:00-16:00 Session *Fuzzy logic*

- 14:00 L. Godo (Bellaterra, Spain), P. Hájek (Praha, Czech Republik)  
*Fuzzy inference as deduction*
- 14:45 S. Gottwald (Leipzig, Germany)  
*On the rule of syllogism for fuzzy implications*
- 15:30 S. Jenei (Budapest, Hungary)  
*Continuity in Zadeh's compositional rule of inference*

16:00-16:30 Coffee Break

### 16:30-18:00 Round Table 2

*Towards a unified view of multiple-valued logics:  
writing plans for a research compendium within COST Action 15*

## Saturday, February 24, 1996

### 09:00-10:30 Session *Conditioning and probability on MV-Algebras*

- 09:00 S. Weber (Mainz, Germany)  
*Multiple-valued conditional objects*
- 09:45 A. Di Nola (Napoli, Italy)  
*Probabilities in varieties of MV-algebras*

10:30-11:00 Coffee Break

### 11:00-12:30 Session *Possibility theory*

- 11:00 G. De Cooman (Gent, Belgium)  
*From possibilistic information to Kleene's strong multi-valued logics*
- 11:45 A. Herzig (Toulouse, France)  
*Possibilistic independence and belief change*

12:30-14:00 Lunch Break

### 14:00-15:00 Closing Session

*General discussion*

In parallel

13:00 **Third Management Committee Meeting of the COST Action 15**