CALL FOR PAPERS FOR THE FLINS 2008 SPECIAL SESSION ON

Theory and Applications of Interval-Valued Fuzzy Sets

organized by Profs. *H. Bustince* and *P. Melo-Pinto*

L. Zadeh introduced the theory of fuzzy sets in 1965. From the beginning it was clear that this theory was an extraordinary tool for representing human knowledge. Nevertheless, L. Zadeh himself established in 1973 that sometimes, in decision-making processes, knowledge is better represented by means of some generalizations of fuzzy sets. The so-called extensions of fuzzy set theory arise in this way.

In the applied field, the success of the use of fuzzy set theory depends on the choice of the membership function that we make. However, there are applications in which experts do not have precise knowledge of the function that should be taken. In these cases, it is appropriate to represent the membership degree of each element to the fuzzy set by means of an interval. From these considerations arises the extension of fuzzy sets called theory of Interval-valued Fuzzy Sets (IVFSs) or Interval Type-2 Fuzzy Sets (IT2FSs), that is, fuzzy sets such that the membership degree of each element of the fuzzy set is given by a closed subinterval of the interval [0, 1]. Hence, not only vagueness (lack of sharp class boundaries), but also a feature of uncertainty (lack of information) can be addressed intuitively.

Authors are invited to submit papers describing theoretical or practical results obtained in IVFSs. This session covers the following topics but not limited to:

- Interval-valued Fuzzy Theory
- Interval-valued Fuzzy Measures
- Interval-valued Fuzzy Correlation Measures
- Interval-valued Fuzzy Logic Systems
- Operators on Interval-valued Fuzzy Sets
- …

and their application to

- Image Processing
- Approximate Reasoning
- Control
- Medical Diagnosis
- Classification Models
- …

IMPORTANT DATES:
- **Paper Submission:** January 15, 2008
- **Acceptance Letter:** March 15, 2008
- **Final Paper Submission and Registration:** April 15, 2008

Submit your paper to flins2008@mat.ucm.es or to organizers e-mail address indicating that your paper is for the special session **Theory and Applications of Interval-Valued Fuzzy Sets** organized by Profs. H. Bustince, P. Melo-Pinto.

Web site: http://www.mat.ucm.es/congresos/flins2008
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