

# ISDA'09

**9<sup>th</sup> International Conference on Intelligent Systems Design and Applications**

November 30 - December 2, 2009, PISA, ITALY

## **Call for Papers: Special Session on**

## **Representation and Approximation of Fuzzy Numbers: Theory and Applications**

The aim of this special session is to bring together researchers that have developed scientific activity in the representation of fuzzy numbers, in their approximations and in the construction of operators for exact or approximate fuzzy arithmetic, with particular emphasis on relevant applications of fuzzy calculus and systems.

Following recent and promising results, attention will be given to parametric representations of families of fuzzy numbers with no restrictions (linearity, concavity/convexity, etc.) of the shape form.

Both theoretical and applied papers will be welcome. Solicited application fields are applied economics and business, financial modelling, risk management, decision making, soft computing with massive fuzzy computations.

### **General Topics:**

1. Parametric representation of fuzzy numbers and fuzzy arithmetic
2. Approximation of fuzzy numbers
3. Massive fuzzy computations
4. Applications and other related topics

Keywords/topics of interest include, but are not limited to:

- LR and LU representation of fuzzy numbers;
- Parametric fuzzy numbers and fuzzy intervals, generalized fuzzy numbers;
- Fuzzy arithmetic and applications;
- Approximation of fuzzy numbers, shape preserving approximation, nearest approximation;
- Decomposition of fuzzy sets and fuzzy numbers;
- Fuzzy extension principle and fuzzy extension of functions;
- Massive computation in fuzzy arithmetic;
- Fuzzy numbers in soft computing;
- Fuzzy statistics, fuzzy regression and applications;
- Algorithms for fuzzy arithmetic and fuzzy calculus;
- Fuzzy differential equations and applications;

### **Instructions for Authors**

The interested authors are invited to send a short description of the proposed paper (list of authors + tentative title + summary) to the session chairs [lucste@uniurb.it](mailto:lucste@uniurb.it) (L. Stefanini) or [pgrzeg@ibspan.waw.pl](mailto:pgrzeg@ibspan.waw.pl) (P. Grzegorzewski) as soon as possible.

All instructions for effective submission can be found in the Conference Web site ([ISDA'09](#)). In particular, submitted papers should follow the IEEE paper format ([template](#)). All papers must be submitted electronically in PDF format only using EasyChair associated site of ISDA'09 Conference.

## Publication

All accepted papers will be published in the proceedings of ISDA'09 that will be also included in the IEEEXplore digital library.

Extended versions of selected papers will be considered for publication in one of the leading Journals in the field.

## Important Dates

- Submission of papers: June 20, 2009
- Notification of acceptance: July 25, 2009
- Camera-ready manuscript submission: September 15, 2009.

## Session Chairs and Contacts

- Luciano Stefanini (University of Urbino, Italy ) and Przemyslaw Grzegorzewski (University of Warsaw, Poland)

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