

Guest Editors:

Prof. Przemysław Grzegorzewski, Ph.D., D.Sc.

Prof. Jesús Medina Moreno, Ph.D.

Assoc. Prof. María Eugenia Cornejo, Ph.D.

Aims and Scope

The notion of vagueness has been extensively analyzed in the last decades by philosophers, logicians, and computer scientists. Here we are interested in the vagueness originated by different characteristics and flaws in information: incompleteness, imprecision, graduality, granularity, contradiction between agents, etc. For each of these aspects one (or more) specific tool has been introduced in literature: fuzzy sets, rough sets, formal concept analysis, possibility theory, Dempster-Shafer theory, interval analysis, compound objects comparators, etc. Further, when more than one form of vagueness are present at the same time, it seems natural to fuse such tools, as in the fuzzy rough set case.

The aim of this Special Session is to bring together theoreticians and practitioners working with uncertainty and vagueness for exchanging ideas and discussing new trends that enlarge the statistical and uncertainty modeling traditions, towards flexible and more specific handling of incomplete or subjective information.

Main topics and quality control

This special issue is dedicated to a set of best papers in the field of uncertainty. Full papers will be subject to a strict review procedure for final selection to this special issue based on the following criteria:

1. Quality and originality of the theory and applications
2. Relevance to the following theoretical topics: rough sets (classical, probabilistic, game-theory, etc.); fuzzy rough sets; interval-valued fuzzy sets; formal concept analysis; possibility theory; Dempster-Shafer theory; super valuations; near sets; interval analysis; grey sets; non-classical logics (many valued, paraconsistent, epistemic, etc.); similarity-based reasoning; possibility theory; Dempster-Shafer theory; Triangular Norms and Copulas.
3. Application orientated to the following areas: analysis of censored data; analysis of fuzzy data; clustering and classification; fuzzy random variables; fuzzy regression methods; graphical models; imprecise probabilities; interval data; machine learning; random sets/random fuzzy sets; robust statistics; rough sets in data analysis; soft computing and statistics; statistical software for imprecise data;
4. If there is an implementation, the details of the implementation must be provided;
5. Extended papers must contain at least 40% new material (qualitative) relative to the conference paper.



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“New Trends in Managing Uncertainty”



Important Dates

Submission of papers:	29 February 2020
Notification of review results:	30 April 2020
Submission of revised papers:	30 May 2020
Notification of final review results:	30 July 2020

Submit your paper

All papers have to be submitted via the Editorial Manager online submission and peer review system. Instructions will be provided on screen and you will be stepwise guided through the process of uploading all the relevant article details and files associated with your submission. All manuscripts must be in the English language.

To access the online submission site for the journal, please visit <https://www.editorialmanager.com/ij-cis/default.aspx>. Note that if this is the first time that you submit to the International Journal of Computational Intelligence Systems, you need to register as a user of the system first.

NOTE : Before submitting your paper, please make sure to review the journal's [Author Guidelines](#) first.

Introduction of the guest editor(s)

Przemyslaw Grzegorzewski is Full Professor at the Faculty of Mathematics and Information Science of Warsaw University of Technology and Systems Research Institute of the Polish Academy of Sciences. His areas of expertise include mathematical statistics, statistical decisions with imprecise data, data mining, fuzzy sets, fuzzy logic, soft computing, etc. Having authored several books, he edited and co-edited several volumes and special issues of scientific journals. Overall, he published more than 160 papers in scientific journals, edited volumes and conference proceedings. He is a co-founder and a member of the Executive Board of the International Conference on Soft Methods in Probability and Statistics (SMPS). He organized many other conferences and workshops. He is a Member of the European Association for Fuzzy Logic and Technology (EUSFLAT).

Jesús Medina is currently Full Professor at the Department of Mathematics, University of Cádiz, Cádiz, Spain. He received the M.S. degree in mathematics in 1998 from the University of Granada, Spain, and the Ph.D. degree in mathematics in 2002 from the University of Málaga, Spain. He is also the author or coauthor of more than 150 papers presented at conferences and published in scientific journals, including the Journal of Applied Logic, Applied Mathematics Letters, Information Sciences, Fuzzy Sets and Systems, and Computers and Mathematics with Applications. He is Associate/Area Editor of diverse ISI journals and it is interested in the research areas of fuzzy sets, fuzzy rough sets, fuzzy logic, residuated and multiadjoint logic programming, relational data



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analysis, and algebraic structures for soft computing. He is a Member of the European Association for Fuzzy Logic and Technology (EUSFLAT) and of the Spanish Association for Artificial Intelligence (AEPIA).

M. Eugenia Cornejo is currently Associate Professor at the Department of Mathematics, University of Cádiz, Cádiz, Spain. She is the coauthor of 60 papers presented at conferences and published in diverse high cited scientific journals. She is interested in the research areas of fuzzy sets, fuzzy logic, logic programming, formal concept analysis, bipolar fuzzy relation equations and algebraic structures for soft computing. She is the ECI Vice Leader of a working group of the COST Action DigForASP, and also collaborates in other national projects and research contracts with companies. She is a Member of the European Association for Fuzzy Logic and Technology (EUSFLAT) and of the Spanish Association for Artificial Intelligence (AEPIA).