

SPECIAL SECTION/ISSUE

Title**Applications of Incompleteness and Uncertainty Management Methods****Editors****Dr. Andrea Campagner**

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The world is currently facing an explosion in the availability of data, as well as an ensuing interest in computational techniques that allow us to (semi-)automatically extract knowledge and value from the data. Despite its abundance, data can be affected by different types of uncertainty, some of which are not usually accounted for when analyzing data: data or label noise, missing data (in different forms, e.g., values that are not known or that are voluntarily not collected), vagueness and ambiguity (such as values described in linguistic terms).

In light of these considerations, it is important to become aware of the potential sources of uncertainty in data and to conceive novel methods to both mitigate and manage their impact. Indeed, several methodologies have been developed for representing and managing incompleteness and uncertainty: these include, among others, probability theory and statistics, rough set theory, fuzzy set theory, the three-way decision, belief functions and imprecise probability, granular computing, as well as their hybridization. These techniques are being increasingly applied in order to comprehensively model uncertainty in real-life applications.

Scope

This special publication collects extended versions of papers presented at the *International Joint Conference on Rough Sets, IJCRS 2023*, which was held in Kraków (Poland) on 5-8 October 2023, and focuses on demonstrating applications of techniques and methodologies for representing and managing incomplete and uncertain information, as well as the use of theoretical methods that aim at investigating its properties.

The invited contributions encompass both methodology-focused and interdisciplinary papers that emphasize the application domain. Both original research and review articles are welcome. The scope encompasses all the different mathematical methodologies that have been proposed for managing incomplete and uncertain information (including but not limited to those mentioned above) as well as their use in any application domain (including, but not limited to, life science, medicine and healthcare; finance and economics; social sciences; natural language processing; smart cities and urban networks; computer vision and robotics).

Note: Submitted papers that have been published in the *IJCRS* proceedings must contain at least 30% additional new content.

Important datesSubmission deadline: **15 March 2024**Notification of acceptance: **30 June 2024**Possible publication: **2024****Information for authors**

- The papers should meet high quality journal manuscript guidelines, in terms of research results, editorial quality, and language. Poorly written manuscripts will not be considered for review.
- The submission must be done online at www.amcs.uz.zgora.pl/?action=submission.
Important! In your paper file, please put as the first keyword capitalized and asterisked *ROUGH*.
- The papers should be prepared with the journal LaTeX template, following strictly the guide for authors available at www.amcs.uz.zgora.pl/?action=guide.
- The submissions will undergo a review process, following the journal rules.
- The final decision will be made by the journal's Editor-in-Chief and Guest Editors.
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