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## DESCRIPTION

The *International Journal of Approximate Reasoning* is intended to serve as a forum for the treatment of **imprecision** and **uncertainty** in **Artificial** and **Computational Intelligence**, covering both the foundations of uncertainty theories, and the design of intelligent systems for scientific and engineering applications. It publishes high-quality research papers describing theoretical developments or innovative applications, as well as review articles on topics of general interest.

Relevant topics include, but are not limited to, probabilistic **reasoning** and Bayesian networks, imprecise probabilities, random sets, belief functions (Dempster-Shafer theory), possibility theory, fuzzy sets, rough sets, decision theory, non-additive measures and integrals, qualitative reasoning about uncertainty, comparative probability orderings, game-theoretic probability, default reasoning, nonstandard logics, argumentation systems, inconsistency tolerant reasoning, elicitation techniques, philosophical foundations and psychological models of uncertain reasoning.

Domains of application for **uncertain reasoning systems** include risk analysis and assessment, information retrieval and database design, information fusion, machine learning, data and web mining, computer vision, image and signal processing, intelligent data analysis, statistics, multi-agent systems, etc.

The journal is affiliated with the [Society for Imprecise Probability: Theories and Applications \(SIPTA\)](#), and [Beliefs functions and Applications Society \(BFAS\)](#).

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The journal collaborates with the [Society for Imprecise Probability: Theories and Applications \(SIPTA\)](http://www.sipta.org/) and the Beliefs functions and Applications Society (BFAS) (<http://www.bfasociety.org/>).

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Relevant topics include, but are not limited to, fuzzy sets and systems, possibility theory, probabilistic reasoning and Bayesian networks, imprecise probabilities, random sets, belief functions (Dempster-Shafer theory), rough sets, decision theory, non-additive measures and integrals, qualitative reasoning about uncertainty, comparative probability orderings, default reasoning, nonstandard logics, elicitation techniques, philosophical foundations and psychological models of uncertain reasoning.

Domains of application and related technical areas include engineering and expert systems, information retrieval and database design, risk analysis and assessment, information fusion, machine learning, data and web mining, modeling and prediction, uncertainty in financial markets, evolutionary computation, computer vision, image and signal processing, pattern recognition, intelligent data analysis, statistics, robotics, hybrid soft computing systems, etc.

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[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, The art of writing a scientific article, *J. Sci. Commun.* 163 (2010) 51–59.

Reference to a book:

[2] W. Strunk Jr., E.B. White, *The Elements of Style*, fourth ed., Longman, New York, 2000.

Reference to a chapter in an edited book:

[3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

Reference to a website:

[4] Cancer Research UK, *Cancer statistics reports for the UK*. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>, 2003 (accessed 13 March 2003).

Reference to a dataset:

[dataset] [5] M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for Japanese oak wilt disease and surrounding forest compositions, *Mendeley Data*, v1, 2015. <https://doi.org/10.17632/xwj98nb39r.1>.

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