

# International Journal of Approximate Reasoning

Special Issue on

## Uncertainty Management in Machine Learning Applications

**Guest Editor**

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## CALL FOR PAPERS

The International Symposium on Integrated Uncertainty in Knowledge Modelling and Decision Making (IUKM) is an open international forum for exchanges of research results, ideas for and experience of application among researchers and practitioners involved with all aspects of uncertainty management and application. IUKM 2016 is the fifth edition of the Conference, which was successfully held in Da-Nang, Vietnam, during 30 November–2 December, 2016.

In Machine Learning applications the uncertainty lies in the noisy data (ambiguous, imprecise, contradictory, missing data) and the unknown (or partly known) model parameters. Such different types of uncertainty come from different sources and require different approaches to handle. This special issue follows IUKM 2016 and solicits contributions dealing with any aspects of uncertainty management in Machine Learning applications. However, it is also open to other relevant contributions that were not presented in IUKM 2016.

Topics include but are not limited to:

- **Methodology:**

- Uncertainty formalisms: Bayesian probabilities, Dempster-Shafer theory, fuzzy measures, random sets, rough sets, fuzzy sets and their hybrids
- Uncertainty modelling and management in big-data environments
- Learning and reasoning with uncertainty

- **Application:**

- Natural language processing
- Bioinformatics / Computational biology
- Medical information systems
- Ranking and recommendation systems
- Opinion mining and sentiment analysis
- Frequent pattern mining
- Social media analytics
- Anomaly detection, etc.

### **Instructions for submission**

- Please follow the instructions of the journal while preparing your manuscript. Guide for authors: <http://www.elsevier.com/journals/international-journal-of-approximate-reasoning/0888-613X/guide-for-authors>
- All papers should be submitted online using Elsevier's NEW online editorial system, Evise<sup>®</sup> (replacement for EES). The submission website for this journal is located at: <https://www.evise.com/profile/#/IJA/login>
- To ensure that all manuscripts are correctly identified for inclusion into the special issue, when submitting their papers, authors must select "**VSI:Uncertainty\_ML**" as the article type.

### **Important Dates**

- 31 May, 2017: Submission deadline
- 15 August, 2017: Notification of the first-round review
- 10 October, 2017: Revised submission due
- 15 December, 2017: Final notice of acceptance/reject