



## Formal concept analysis and uncertainty

It is a special session in the 19th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2022, that will be held in Milan (Italy) on July 11th – 15th.

Formal Conceptual Analysis (FCA) is recently being adopted as a solid alternative to information processing for use in real applications with some automated methods. More specifically, there has been an important growth in its use in a wide variety of areas: Biomedicine, Tourism, Education, Social Networks, etc.

Much of this recent interest is due to its unique and general framework that allows all the stages involved in the path from information to knowledge to be developed from start to finish and, moreover, to automatically reason about it.

Over the last few years, research on extending FCA theory to deal with imprecise and incomplete information has advanced significantly: Fuzzy Formal Conceptual Analysis, FCA with granular computation, interval-value, possibility theory, triadic FCA and others aim to deal with uncertainty and vagueness in data.

## Topics

This session aims to gather a number of researchers concerning FCA and imprecision in data management. The topics include but not are limited to:

- Theoretical foundations in FCA
- Logic and fuzzy logic in FCA
- Attribute implications, association rules and data dependencies
- Redundancy and dimensionality reduction
- Knowledge discovery and data analysis
- Conceptual Exploration
- Ontologies
- Algorithms and applications

## Publication

The conference proceedings will be published in Communications in Computer and Information Science (CCIS) with Springer. CCIS is abstracted/indexed in DBLP, Google Scholar, EI-Compendex, Mathematical Reviews, SCImago, Scopus. CCIS volumes will also be submitted for the inclusion in ISI Proceedings (Web-of-Science).

## Submissions

The submission must be written in English using the LaTeX2e Springer class file (LNCS/CCIS one-column page format). The length of submission is at most 12 pages in this format and may be submitted in PDF via the EasyChair system at:

<https://easychair.org/conferences/directory?a=26272215>

In the system, you can choose the **Formal concept analysis and uncertainty** topic.

The submission rules are available in <https://ipmu2022.disco.unimib.it/submission/>

## Important dates

**Submission of full papers:** 14 January, 2022  
**Notification of acceptance:** 1 March, 2022  
**Camera ready copies due:** 15 April, 2022  
**Conference:** 11 - 15 July, 2022

## Organizers

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