



Special Session on Theoretical and applied aspects of Imprecise Probabilities

Description

The Special Session on Theoretical and applied aspects of Imprecise Probabilities will be held at the 21st International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU 2026), Rome (Italy), June 15-19, 2026.

This session is devoted to Imprecise Probability Theory, which involves all the mathematical models that can be used as more flexible tools than usual Probability Theory when the available information is scarce, vague or incomplete. It includes lower previsions, n -monotone capacities, belief functions, p -boxes, possibility measures, or non-additive measures, among others. This special session aims to include papers related to Imprecise Probabilities that either present a significant advance in the foundations or show potential applications in real problems. In addition, papers where the connection between imprecise probability theories and other fields such as fuzzy sets or game theory is emphasised are also welcome.

Topics of interest

The topics of interest include (but are not limited to):

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| Theoretical topics | <ul style="list-style-type: none"> • (coherent) uncertainty models • non-additive set-functions • qualitative reasoning about uncertainty • limit laws for imprecise probabilities • philosophical foundations • elicitation and inference • robust statistics • decision making | Applied topics | <ul style="list-style-type: none"> • data mining • classification and machine learning • risk and reliability analysis • finance • life sciences • system control and design • algorithmic issues |
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Important dates

Paper submission: January 12, 2026

Notification of acceptance: February 15, 2026

Conference: June 15-19, 2026

Organisers

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