

Call for papers

Special Session on

THEORETICAL AND APPLIED ASPECTS OF IMPRECISE PROBABILITIES

to be held at the

18th International Conference on Information Processing and Management of Uncertainty in
Knowledge-Based Systems (IPMU 2020)

<https://ipmu2020.inesc-id.pt/>

Lisboa (Portugal), June 15-19, 2020

Session topic and goal

This session is devoted to Imprecise Probability Theory. This theory 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, 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 emphasized are also welcome.

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

- (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
- algorithmic issues

Applications include (but are not limited to):

- data mining
- classification and machine learning
- risk and reliability analysis
- finance
- life sciences
- system control and design

Dates

Paper submission: January 31, 2020

Notification of Acceptance: March 8, 2020

Conference: June 15-19, 2020

The EasyChair submission site will offer one track for this special session, so please make sure that you select it when submitting your contribution.

Organizers

We would be obliged if you would let us know in case you intend to submit a paper to this session, at your earliest convenience. Any questions or remarks can be addressed to:

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