The ISIPTA meetings are the primary international forum to present and discuss new results on the theories and applications of imprecise probability.

Imprecise probability is a generic term for the many mathematical and statistical models and methods, allowing us to measure chance or uncertainty without the restriction of sharp probabilities. These models include lower and upper expectations or previsions, interval valued probabilities, sets of probability measures, belief functions, Choquet capacities, comparative probability orderings, possibility measures, plausibility measures, and sets of desirable gambles. Imprecise probability models are needed in inference and decision problems where the relevant information is scarce, vague or conflicting, and where preferences may be incomplete.

Symposium format

It is a tradition of the ISIPTA meetings that we try to avoid parallel sessions. Each accepted paper is to be presented both (i) in a plenary session, where we ask for a short introduction and sketch of the context and relevance of the paper; and (ii) in a poster session, where ample opportunity and time is given for detailed explanation and discussion.

We also invite posters without a paper to attract people who wish to present and discuss their work within the framework of the conference, for instance, for practitioners who wish to discuss possibilities for applications in their field using imprecise probabilities, or for starting students. A poster without paper can also be an option to advertise ongoing work or to discuss challenges.

Submissions

Submission of abstracts for posters is now open.

If you wish to present a poster without paper, please submit a one-page abstract of the work you intend to present. Abstracts of accepted posters will be made available at the conference and online.

Important dates

For posters without paper:
Abstract submission deadline: May 20 2011
Notification of acceptance: June 10 2011

Symposium: July 25-28 2011

Themes of the symposium

The symposium is open to contributions on all aspects of imprecise probability. Topics of interest include, but are not limited to:

- models of coherent imprecise assessments
- sets of probability measures, credal sets
- interval-valued probabilities
- upper and lower expectations or previsions
- non-additive set functions, and in particular Choquet capacities (and Choquet integration), possibility measures, belief and plausibility measures
random sets
rough sets
comparative probability orderings
qualitative reasoning about uncertainty
imprecision in utilities and expected utilities
limit laws for imprecise probabilities
physical models of imprecise probability
philosophical foundations for imprecise probabilities
psychological models for imprecision and indeterminacy in probability assessments
elicitation techniques for imprecise probabilities
robust statistics
probabilistic bounding analysis
data mining with imprecise probabilities
dealing with missing data
estimation and learning of imprecise probability models
decision making with imprecise probabilities
ambiguity aversion and economic models of imprecise probability
uncertainty in financial markets
game-theoretic probability
algorithms for manipulating imprecise probabilities
Dempster-Shafer theory
information algebras and probabilistic argumentation systems
probabilistic logic, propositional and first-order
credal networks and other graphical models
credal classification
applications in engineering, computer science and artificial intelligence, statistics, economics, finance, management, psychology, philosophy and related fields.

Location
ISIPTA ’11 will be held in Hotel Grauer Bär in Innsbruck, Austria. More information about Hotel Grauer Bär can be found on this website: www.innsbruck-hotels.at/hotel-grauer-baer/das-hotel/.

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Further details
For further details about registration, paper and poster submission, scientific program, social program and program committee, please consult the ISIPTA ’11 web site at www.sipta.org/isipta11/.
Details about previous ISIPTA meetings can be found at www.sipta.org/index.php?id=cs.
For information about SIPTA, the international organisation responsible for organizing both the ISIPTA meetings and the SIPTA Schools on Imprecise Probabilities, please consult the SIPTA web site at www.sipta.org.

Special session Bruno de Finetti
A scientific and a historical session will be devoted to Bruno de Finetti who was born in Innsbruck in 1906.

In addition, participants are encouraged to submit contributions to the poster sessions that address/incorporate/extend de Finetti’s work in the context of imprecise probability.