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Preface

The *Eighth International Symposium on Imprecise Probability: Theories and Applications* is held in Compiègne, France, 2–5 July 2013.

The ISIPTA meetings are a primary forum for presenting and discussing advances in imprecise probability and are organized once every two years. The first meeting was held in Gent in 1999, followed by meetings in Ithaca (Cornell University), Lugano (IDSIA), Pittsburgh (Carnegie Mellon University), Prague, Durham (UK) and Innsbruck. In the decade since the first meeting, imprecise probability has come a long way, which is reflected by the wide range of topics presented at the 2013 meeting, but particularly also in the increased presence of imprecise probability in journals and at other conferences.

As with previous ISIPTA meetings, the program only contains plenary sessions. In total, 38 papers are presented by a short talk and a poster, which guarantees ample time for discussion. The papers are included in these proceedings and are also available on the SIPTA webpage (www.sipta.org). Submitted papers have undergone a high quality reviewing process by members of the Program Committee, ensuring the quality of the presented research results.

To provide a platform for preliminary ideas and challenging applications for which the research is not yet completed, poster-only presentations have been introduced at ISIPTA'09 and the initiative pursued in ISIPTA'11. We continue with this tradition; short abstracts of these poster-only presentations are included in the proceedings and are available on the SIPTA webpage.

As with previous ISIPTA meetings, a wide variety of theories and applications of imprecise probability are presented. New application areas and novel ways for dealing with limited information prove the increasing success of imprecise probability.

Most participants having a good knowledge of the basics of imprecise probabilities, the two introductory tutorials introducing have been scheduled the day before the start of the conference. We thank Thierry Denœux and Matthias Troffaes for preparing and presenting tutorials on Belief functions and imprecise probabilities, respectively.

Invited talks are intended to present both recent developments in selected fields and topics that are related but not directly linked to the main topics of ISIPTA. We thank Alessio Benavoli (Switzerland) for preparing and presenting the talk *Pushing Dynamic Estimation to the Extremes: from the Moon to Imprecise Probability*, Linda van der Gaag (Netherlands) for preparing and presenting the talk *Recent Advances in Sensitivity Analysis of Bayesian Networks*, Christophe Labreuche (France) for preparing and presenting the talk *Robustness in Multi-Criteria Decision Making and its relation with Imprecise Probabilities* and Jean-Marc Tallon (France) for preparing and presenting the talk *Ambiguity and ambiguity attitudes in economics*.

During the conference two prizes are awarded: the *Best Poster Award*, sponsored by Springer-Verlag, and the *IJAR Young Researcher Award*, granted by the International Journal of Approximate Reasoning.

We believe that, in the fourteen years since ISIPTA'99, imprecise probability has found a solid place in research on uncertainty quantification and related fields. Because applications are increasing, both in number and success, we are optimistic about the future impact of imprecise probability. We think that the current format of ISIPTA is successful, and we hope that all participants will find the meeting pleasant, informative, and beneficial. We hope that ISIPTA'13 provides a good platform to present and discuss work, and also leads to new ideas and collaborations.

Finally, we wish to thank several people for their support. We thank Thomas Fetz and Matthias Troffaes for their precious advices, inherited from the organization of past ISIPTAs. We thank Serafín Moral for his extensive and expert help in managing the system supporting the conference website.

We thank the members of the Program Committee for their excellent reviewing activities. Special thanks also to the Local Organizing Committee, in particular, to Nathalie Alexandre and Cécile Poncin for their help.

We thank all our sponsors for their support and help in organizing this conference.

Finally, we thank all who have contributed to the success of ISIPTA'13, be it by submitting their research results, presenting them at the conference, or by attending sessions and participating in discussions. We hope that these proceedings will convey the state of the art of imprecise probability, raise interest and contribute to the further dissemination of the fascinating ideas of this active and highly relevant research field.

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