

# ECSQARU 2017

## ISIPTA '17



Lugano, Switzerland  
10-14 July 2017

## Preface

ISIPTA '17 (*Tenth International Symposium on Imprecise Probability: Theories and Applications*) and ECSQARU 2017 (*Fourteenth European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty*) will be held jointly in Lugano from July 10 to 14, 2017. The co-location is a first attempt to promote cross-fertilization between researchers of two communities working in similar scientific areas.

**About Isipta.** The ISIPTA meetings are the primary forum for research on imprecise probability. Organized every two years, the first meeting was held in Ghent in 1999 and followed by meetings in Ithaca, Lugano, Pittsburgh, Prague, Durham, Innsbruck, Compiègne and Pescara. The proceedings of this edition are published for the first time within the *Proceedings of Machine Learning Research* series. The technical program includes oral presentations of the 32 accepted papers and 14 poster-only contributions.

**About Ecsqaru.** The ECSQARU conferences are a major forum for advances in the theory and practice of reasoning under uncertainty. Organized every two years, the first edition was held in Marseille in 1991 and followed by meetings in Granada, Fribourg, Bonn, London, Toulouse, Aalborg, Barcelona, Hammamet, Verona, Belfast, Utrecht and Compiègne. All the 44 accepted papers, published in the Springer Lecture Notes in Artificial Intelligence subseries (LNCS series), are included in the technical program for oral presentations.

**Invited Talks.** Besides the technical program, five distinguished invited speakers will give keynote lectures. They are Leila Amgoud (IRIT, France), Alessio Benavoli (IDSIA, Switzerland), Jim Berger (Duke University, USA), Didier Dubois (IRIT, France), and Eyke Hüllermeier (Paderborn University, Germany).

**Young Researcher Awards.** Two *Young Researcher Awards* granted by IJAR (Elsevier) and Springer will be assigned to young researchers for excellent scientific activity in the research domains of Isipta and Ecsqaru. The two winners will be awarded during the banquet dinner.

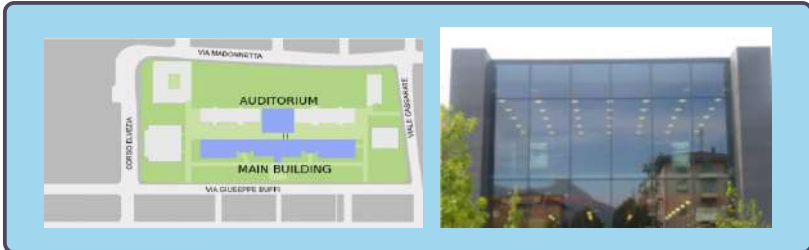
**Organizational and Financial Support.** We acknowledge organizational support from IDSIA (Istituto Dalle Molle di Studi sull'Intelligenza Artificiale), USI (Università della Svizzera Italiana), and SUPSI (Scuola Universitaria Professionale della Svizzera Italiana). We also acknowledge financial support from Onera.

*Alessandro Antonucci and Giorgio Corani  
(ISIPTA '17 & ECSQARU 2017 Local Organizers)*

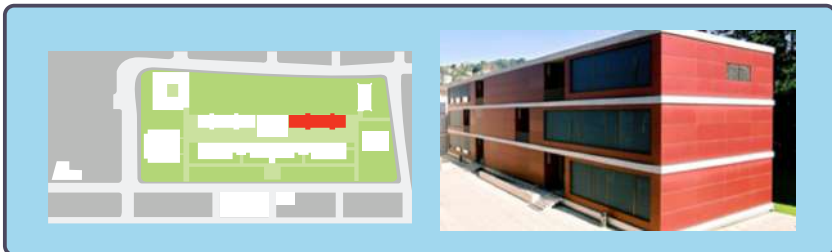
## Venues

**Conference.** The event will be held at the Università della Svizzera Italiana (USI, [Via Buffi 13, Lugano](#)). The sessions will take place in:

- the **auditorium**, access from the third floor of the main building;



- room **A11**, access from the first floor of the red building.



**Coffee breaks.** Coffee breaks will be provided outdoor in the portico between the red and the main building.

**Lunches & Reception.** A welcome reception (on Monday) and two lunches (Tuesday and Thursday) will be offered to the registered participants at the **Bistrot Vecchio Torchio** (*Via Taddei 4c, Lugano*).



**Banquet.** The banquet will be held on Wednesday at the restaurant on the top of the **San Salvatore mountain**. A funicular railway will take the participants to the restaurant. Meeting points are 6.30pm in the conference place and 7pm at the funicular station (*Via delle Scuole 7, Paradiso*).



**Internet Access.** Euroam access is available in the university. Alternatively you can use the university network (SSID: *USIwireless*), using **guest** as login and **guest** as password.

**:: PROGRAM OVERVIEW ::**

**:: DAY 1 :: Monday (July 10) @ room A11 ::**

08:00–08:45	Registration
08:45–09:00	Opening (ISIPTA)
09:00–10:20	Foundations I (4 talks)
10:20–10:40	Coffee Break
10:40–11:20	Foundations II (2 talks)
11:20–11:30	Break
11:30–12:30	Keynote Benavoli
12:30–14:00	Lunch
14:00–15:20	Teddy Seidenfeld (4 talks)
15:20–15:40	Coffee Break
15:40–17:00	Decision Making (4 talks)
17:00–17:20	Break
17:20–18:20	Poster Session I
19:00–20:00	Welcome Reception @ Vecchio Torchio

**:: DAY 2 :: Tuesday (July 11) @ auditorium ::**

08:50–09:00	Opening (ECSQARU)
09:00–10:20	Learning I (4 talks)
10:20–10:40	Coffee Break
10:40–11:20	Learning II (2 talks)
11:20–11:30	Break
11:30–12:30	Keynote Hüllermeier
12:30–14:10	Conference Lunch @ Vecchio Torchio
14:10–15:30	Graphical Models I (4 talks)
15:30–15:50	Coffee Break
15:50–16:50	Graphical Models II (3 talks)
16:50–17:10	Break
17:10–18:30	Graphical Models III (4 talks)

**:: DAY 3 :: Wednesday (July 12) @ auditorium + room A11 ::**

09:00–10:20	Belief Function I (auditorium, 4 talks)
	Elicitation (room A11, 4 talks)
10:20–10:40	Coffee Break
10:40–11:20	Belief Function II (auditorium, 2 talks)
	Analogical Reasoning (room A11, 2 talks)
11:20–11:30	Break
11:30–12:30	Keynote Berger (auditorium)
12:30–14:00	Lunch
14:00–15:00	Keynote Amgoud (auditorium)
15:00–15:20	Coffee Break
15:20–16:40	Argumentation (auditorium, 4 talks)
	Coherence (room A11, 4 talks)
16:40–17:00	Break
17:00–18:20	Credal Sets (auditorium, 4 talks)
	Game Theory (room A11, 4 talks)
18:30– ...	Transfer to the Banquet (Monte San Salvatore)

**:: DAY 4 :: Thursday (July 13) @ auditorium ::**

09:00–10:20	Conditionals (4 talks)
10:20–10:40	Coffee Break
10:40–11:20	Logics (2 talks)
11:20–11:30	Break
11:30–12:30	Keynote Dubois
12:30–14:10	Conference Lunch @ Vecchio Torchio
14:10–15:30	Probabilistic Logics (4 talks)
15:30–15:50	Coffee Break
15:50–16:50	Probabilistic Programming (3 talks)
16:50–17:10	Break
17:10–18:30	Fuzzy (4 talks)
18:30–19:30	Ecsqaru & Sipta General Meetings

**:: DAY 5 :: Friday (July 14) @ room A11 ::**

09:00–10:00	Poster Session II
10:00–10:20	Coffee Break
10:20–11:20	Open Problems in IP (Round Table)
11:20–11:30	Break
11:30–12:30	Poster Session III
12:30–12:40	Closing



**:: SCIENTIFIC PROGRAM ::****:: DAY 1 :: Monday morning @ room A11 ::**

*Registration from 08:00*

*ISIPTA Opening (08:45 - 09:00)*

**Foundations I**

Chair: Marco Zaffalon

- 09:00 - 09:20 *Kurt Weichselberger's contribution to imprecise probabilities.* Thomas Augustin and Rudolf Seising.
- 09:20 - 09:40 *Computable randomness is inherently imprecise.* Gert de Cooman and Jasper De Bock.
- 09:40 - 10:00 *Empirical interpretation of imprecise probabilities.* Marco Cattaneo.
- 10:00 - 10:20 *SOS for bounded rationality.* Alessio Benavoli, Alessandro Facchini, Dario Piga and Marco Zaffalon.

*Coffee break (20 mins)*

**Foundations II**

Chair: Matthias Troaffes

- 10:40 - 11:00 *A polarity theory for sets of desirable gambles.* Alessio Benavoli, Alessandro Facchini, José Vicente-Pérez and Marco Zaffalon.
- 11:00 - 11:20 *Linear core-based criterion for testing extreme exact games.* Milan Studený and Václav Kratochvíl.

*Break (10 mins)*

**Invited Talk**

Chair: Alessandro Antonucci

- 11:30 - 12:30 *Bayes + Hilbert = Quantum Mechanics.* Alessio Benavoli.

*Lunch break (90 mins)*

**:: DAY 1 :: Monday afternoon @ room A11 ::**

**"Teddy Seidenfeld" Session**

Chair: Fabio Cozman

- 14:00 - 14:20 *Evenly convex credal sets.* Fabio Cozman.
- 14:20 - 14:40 *Agreeing to disagree and dilation.* Jiji Zhang, Hailin Liu and Teddy Seidenfeld.
- 14:40 - 15:00 *Computing minimax decisions with incomplete observations.* Thijs van Ommen.
- 15:00 - 15:20 *Exchangeable choice functions.* Arthur Van Camp and Gert de Cooman.

*Coffee break (20 mins)*

**Decision Making**

Chair: Sébastien Destercke

- 15:40 - 16:00 *Reconciling Bayesian and frequentist tests: the imprecise counterpart.* Inés Couso, Antonio Álvarez-Caballero and Luciano Sánchez.
- 16:00 - 16:20 *Imprecise swing weighting for multi-attribute utility elicitation based on partial preferences.* Matthias Troffaes and Ullrika Sahlin.
- 16:20 - 16:40 *Concepts for decision making under severe uncertainty with partial ordinal and partial cardinal preferences.* Christoph Jansen, Georg Schollmeyer and Thomas Augustin.
- 16:40 - 17:00 *Modeling Markov decision processes with imprecise probabilities using probabilistic logic programming.* Thiago Bueno, Denis Mauá, Leliane Barros and Fabio Cozman.

*Break (20 mins)*

**:: DAY 1 :: Monday afternoon @ room A11 ::**

**Poster Session I (17:20 - 18:20)**

Chair: Jasper De Bock

**Poster-only contributions (with spotlight presentation)**

- *Updated and extended network analysis of the Imprecise Probability Community based on ISIPTA electronic proceedings.* Paul Fink and Gero Walter.
- *Modelling spectrum assignment in a two-service flexi-grid optical link with imprecise continuous-time Markov chains.* Cristina Rottondi, Alexander Erreygers, Giacomo Verticale and Jasper De Bock.
- *Implementation of linear core-based criterion for testing extreme exact games.* Milan Studený and Václav Kratochvíl.

**Regular papers (no spotlight presentation)**

- *Kurt Weichselberger's contribution to imprecise probabilities.* Thomas Augustin and Rudolf Seising.
- *Empirical interpretation of imprecise probabilities.* Marco Cattaneo.
- *Computable randomness is inherently imprecise.* Gert de Cooman and Jasper De Bock.
- *Evenly convex credal sets.* Fabio Cozman.
- *Imprecise swing weighting for multi-attribute utility elicitation based on partial preferences.* Matthias Troffaes and Ullrika Sahlin.
- *Exchangeable choice functions.* Arthur Van Camp and Gert de Cooman.
- *Agreeing to disagree and dilation.* Jiji Zhang, Hailin Liu and Teddy Seidenfeld.

*Welcome reception @ Vecchio Torchio (from 19.00)*

**:: DAY 2 :: Tuesday morning @ auditorium ::**

*ECSQARU Opening (08:45)*

**Learning 1**

Chair: Inés Couso

- 09:00 - 09:20 *Parameter learning algorithms for continuous model improvement using operational data.* Anders Madsen, Nicolaj Søndberg-Jeppesen, Frank Jensen, Mohamed Sayed, Ulrich Moser, Luis Neto, Joao Reis and Niels Lohse.
- 09:20 - 09:40 *Possibilistic MDL: a new possibilistic likelihood based score function for imprecise data.* Maroua Haddad, Philippe Leray and Nahla Ben Amor.
- 9:40 - 10:00 *Towards a cautious modelling of missing data in small area estimation.* Julia Plass, Aziz Omar and Thomas Augustin.
- 10:00 - 10:20 *Maximum likelihood with coarse data based on robust optimisation.* Romain Guillaume, Inés Couso and Didier Dubois.

*Coffee break (20 mins)*

**Learning II**

Chair: Giorgio Corani

- 10:40 - 11:00 *(Generalized) linear regression on microaggregated data - from nuisance parameter optimization to partial identification.* Paul Fink and Thomas Augustin.
- 11:00 - 11:20 *Ensemble enhanced evidential k-NN classifier through random subspaces.* Asma Trabelsi and Zied Elouedi and Eric Lefevre.

*Break (10 mins)*

**Invited Talk**

Chair: Sébastien Destercke

- 11:30 - 12:30 *Learning from imprecise data.* Eyke Hüllermeier.

*Conference Lunch @ Vecchio Torchio (90 mins)*

**:: DAY 2 :: Tuesday afternoon @ auditorium ::****Graphical Models I**

Chair: Jasper De Bock

- 14:10 - 14:30 *Exploiting stability for compact representations of independency models.* Linda C. van der Gaag and Stavros Lopatzidis.
- 14:30 - 14:50 *Structure-based categorisation of Bayesian network parameters.* Janneke Bolt and Silja Renooij.
- 14:50 - 15:10 *The descriptive complexity of Bayesian network specifications.* Fabio Cozman and Denis Mauá.
- 15:10 - 15:30 *Efficient policies for stationary possibilistic Markov decision processes.* Nahla Ben Amor, Zeineb Elkhalfi, Helene Fargier and Régis Sabbadin.

Coffee Break (20 mins)

**Graphical Models II**

Chair: Alessandro Antonucci

- 15:50 - 16:10 *Credal sum-product networks.* Denis Mauá, Fabio Cozman, Diarmaid Conaty and Cassio De Campos.
- 16:10 - 16:30 *Efficient computation of updated lower expectations for imprecise continuous-time hidden Markov chains.* Thomas Krak, Jasper De Bock and Arno Siebes.
- 16:30 - 16:50 *Imprecise continuous-time Markov chains: efficient computational methods with guaranteed error bounds.* Alexander Erreygers and Jasper De Bock.

Break (20 mins)

**Graphical Models III**

Chair: Alessio Benavoli

- 17:10 - 17:30 *Monotonicity in Bayesian networks for computerized adaptive testing.* Martin Plajner and Jirka Vomlel.
- 17:30 - 17:50 *Reliable knowledge-based adaptive testing by credal networks.* Francesca Mangili, Claudio Bonesana and Alessandro Antonucci.
- 17:50 - 18:10 *Algorithms for multi-criteria optimization in possibilistic decision trees.* Nahla Ben Amor, Fatma Essghaier and Helene Fargier.
- 18:10 - 18:30 *Solving trajectory optimization problems by influence diagrams.* Jirka Vomlel and Václav Kratochvíl.

**:: DAY 3 :: Wednesday morning @ auditorium + room A11 ::**

**Belief Functions I (auditorium)**

Chair: Barbara Vantaggi

- 09:00 - 09:20 *Efficient computation of belief theoretic conditionals.* Lalintha G. Polpitiya, Kamal Premaratne, Manohar N. Murthi and Dilip Sarkar.
- 09:20 - 09:40 *Iterative aggregation of crowdsourced tasks within the belief function theory.* Lina Abassi and Imen Boukhris.
- 09:40 - 10:00 *A clustering approach for collaborative filtering under the belief function framework.* Raoua Abdelkhalek, Imen Boukhris and Zied Elouedi.
- 10:00 - 10:20 *A recourse approach for the capacitated vehicle routing problem with evidential demands.* Nathalie Helal, Frédéric Pichon, Daniel Pournabel, David Mercier and Eric Lefevre.

**Elicitation (room A11)**

Chair: Silja Renooij

- 09:00 - 09:20 *Expert opinion extraction from a biomedical database.* Ahmed Samet, Thomas Guyet, Benjamin Negrevergne, Tien Tuan Dao, Tuan Nha Hoang and Marie Christine Ho Ba Tho.
- 09:20 - 09:40 *Differences of opinion.* Dionissi Aliprantis.
- 09:40 - 10:00 *The CWI world cup competition: eliciting sets of acceptable gambles.* Erik Quaeghebeur, Chris Wesseling, Emma Beauxis-Aussalet, Teresa Piovesan and Tom Sterkenburg.
- 10:00 - 10:20 *New distributions for modeling subjective lower and upper probabilities.* Michael Smithson.

*Coffee break (20 mins)*

**:: DAY 3 :: Wednesday morning @ auditorium + room A11 ::**

**Belief Functions II (auditorium)**

Chair: Frédéric Pichon

- 10:40 - 11:00 *A generic framework to include belief functions in preference handling and multi-criteria decision.* Sébastien Destercke.
- 11:00 - 11:20 *Evidential k-NN for link prediction.* Sabrina Mallek, Imen Boukhris, Zied Elouedi and Eric Lefevre.

**Analogical Inequalities (room A11)**

Chair: Anthony Hunter

- 10:40 - 11:00 *Analogical inequalities.* Henri Prade and Gilles Richard.
- 11:00 - 11:20 *Boolean analogical proportions - axiomatics and algorithmic complexity issues.* Henri Prade and Gilles Richard.

*Break (10 mins)*

**Invited Talk (auditorium)**

Chair: Giorgio Corani

- 11:30 - 12:30 *Encounters with imprecise probabilities.* Jim Berger.

*Lunch (12:30 - 14:00)*

**:: DAY 3 :: Wednesday afternoon @ auditorium + room A11 ::**

**Invited Talk (auditorium)**

Chair: Odile Papini

14:00 - 15:00 *Evaluation methods of arguments: current trends and challenges.*  
Leila Amgoud.

*Coffee break (20 mins)*

**Argumentation (auditorium)**

Chair: Didier Dubois

15:20 - 15:40 *Updating probabilistic epistemic states in persuasion dialogues.* Anthony Hunter and Nico Potyka.

15:40 - 16:00 *From structured to abstract argumentation: assumption-based acceptance via AF reasoning.* Tuomo Lehtonen, Johannes P. Wallner and Matti Järvisalo.

16:00 - 16:20 *On relating abstract and structured probabilistic argumentation: a case study.* Henry Prakken.

16:20 - 16:40 *Evaluation of arguments in weighted bipolar graphs.* Leila Amgoud and Jonathan Ben-Naim.

**Coherence (room A11)**

Chair: Enrique Miranda

15:20 - 15:40 *Efficient algorithms for checking avoiding sure loss.* Nawapon Nakharutai, Matthias Troffaes and Camila Caiad.

15:40 - 16:00 *Bayesian inference under ambiguity: conditional prior belief functions.* Giulianella Coletti, Davide Petturiti and Barbara Vantaggi.

16:00 - 16:20 *Independent natural extension for infinite spaces: Williams-coherence to the rescue.* Jasper De Bock.

16:20 - 16:40 *Weak Dutch Books versus strict consistency with lower previsions.* Chiara Corsato, Renato Pelessoni and Paolo Vici.

*Coffee break (20 mins)*



**:: DAY 3 :: Wednesday afternoon @ auditorium + room A11 ::****Credal Sets (auditorium)**

Chair: Erik Quaeghebeur

- 17:00 - 17:20 *A study of the pari-mutuel model from the point of view of imprecise probabilities.* Ignacio Montes, Enrique Miranda and Sébastien Destercke.
- 17:20 - 17:40 *Errors bounds for finite approximations of coherent lower previsions.* Damjan Škulj.
- 17:40 - 18:00 *A note on imprecise Monte Carlo over credal sets via importance sampling.* Matthias Troffaes.
- 18:00 - 18:20 *Incoherence correction and decision making based on generalized credal sets.* Andrey Bronevich and Igor Rozenberg.

**Game Theory (room A11)**

Chair: Milan Studený

- 17:00 - 17:20 *Debate-based learning game for constructing mathematical proofs.* Nadira Boudjani, Abdelkader Gouaich and Souhila Kaci.
- 17:20 - 17:40 *Axiomatization of an importance index for  $k$ -ary games.* Mustapha Ridaoui, Michel Grabisch and Christophe Labreuche.
- 17:40 - 18:00 *An Angel-daemon approach to assess the uncertainty in the power of a collectivity to act.* Giulia Fragnito, Joaquim Gabarro and Maria Serna.
- 18:00 - 18:20 *Game solutions, probability transformations and the core.* Enrique Miranda and Ignacio Montes.

*Banquet dinner (meeting point: 18.30 @USI or 19.00pm @Funicolare)*

**:: DAY 4 :: Thursday morning @ auditorium ::**

<b>Conditionals</b>		Chair: Henri Prade
9:00 - 9:20	<i>Comparison of inference relations defined over different sets of ranking functions.</i> Christoph Beierle and Steven Kutsch.	
9:20 - 9:40	<i>A semantics for conditionals with default negation.</i> Marco Wilhelm, Christian Eichhorn, Richard Niland and Gabriele Kern-Isberner.	
9:40 - 10:00	<i>A transformation system for unique minimal normal forms of conditional knowledge bases.</i> Christoph Beierle, Christian Eichhorn and Gabriele Kern-Isberner.	
10:00 - 10:20	<i>On the Boolean structure of conditional events and its logical counterpart.</i> Tommaso Flaminio, Lluís Godó and Hykel Hosni.	

Coffee break (20 mins)

<b>Logics</b>		Chair: H��l��ne Fargier
10:40 - 11:00	<i>A two-tiered propositional framework for handling multisource inconsistent information.</i> Davide Ciucci and Didier Dubois.	
11:00 - 11:20	<i>Complexity of model checking for cardinality-based belief revision operators.</i> Nadia Creignou, Raia Ktari and Odile Papini.	

Break (10 mins)

<b>Invited Talk</b>		Chair: In��s Couso
11:30 - 12:30	<i>Symbolic and Quantitative Representations of Uncertainty: an Overview.</i> Didier Dubois.	

Conference lunch @ Vecchio Torchio

**:: DAY 4 :: Thursday afternoon @ auditorium ::****Probabilistic Logics**

Chair: Gert de Cooman

- 14:10 - 14:30 *Reasoning in description logics with typicalities and probabilities of exceptions.* Gian Luca Pozzato.
- 14:30 - 14:50 *Count queries in probabilistic spatio-temporal knowledge bases with capacity constraints.* John Grant, Cristian Molinaro and Francesco Parisi.
- 14:50 - 15:10 *Generalized probabilistic modus ponens.* Giuseppe Sanfilippo, Niki Pfeifer and Angelo Gilio.
- 15:10 - 15:30 *A first-order logic for reasoning about higher-order upper and lower probabilities.* Nenad Savic, Dragan Doder and Zoran Ognjanovic.

Coffee Break (20 mins)

**Probabilistic Programming**

Chair: Christoph Beierle

- 15:50 - 16:10 *RankPL: a qualitative probabilistic programming language.* Tjitze Rienstra.
- 16:10 - 16:30 *The complexity of inferences and explanations in probabilistic logic programming.* Fabio Cozman and Denis Mauá.
- 16:30 - 16:50 *Decision theory meets linear optimization beyond computation.* Christoph Jansen, Thomas Augustin and Georg Schollmeyer.

Break (20 mins)

**Fuzzy**

Chair: Lluís Godo

- 17:10 - 17:30 *Measuring uncertainty in orthopairs.* Andrea Campagner and Davide Ciucci.
- 17:30 - 17:50 *Probability measures in Goedel-Delta logic.* Stefano Aguzzoli, Matteo Bianchi, Brunella Gerla and Diego Valota.
- 17:50 - 18:10 *Fuzzy weighted attribute combinations based similarity measures.* Giulianella Coletti, Davide Petturiti and Barbara Vantaggi.
- 18:10 - 18:30 *Online fuzzy temporal operators for complex system monitoring.* Jean-Philippe Poli, Laurence Boudet, Espinosa Bruno and Laurence Cornez.

18:30 – 19:30: SIPTA &amp; ECSQARU general meetings

## :: DAY 5 :: Friday morning @ room A11 ::

**Poster Session II (09:00 - 10:00)**

Chair: Jasper De Bock

### **Poster-only contributions (with spotlight presentation)**

- *Statistics for imprecise data: the key for enlarging the IP community.* Marco de Angelis, Scott Ferson and Luke Green.
- *Imprecise Imputation for Statistical Matching.* Eva Endres, Paul Fink and Thomas Augustin.
- *Handling the state space explosion of Markov chains: how lumping introduces imprecision (almost) inevitably.* Alexander Erreygers and Jasper De Bock.
- *Efficient computation of upper probabilities of failure using Monte Carlo simulation and reweighting techniques.* Thomas Fetz.
- *Analysis and extension of the evidential reasoning algorithm for multiple attribute decision analysis with uncertainty.* Lianmeng Jiao and Xiaojiao Geng.

### **Regular papers (no spotlight presentation)**

- *Imprecise continuous-time Markov chains: efficient computational methods with guaranteed error bounds.* Alexander Erreygers and Jasper De Bock.
- *Game solutions, probability transformations and the core.* Enrique Miranda and Ignacio Montes.
- *A study of the pari-mutuel model from the point of view of imprecise probabilities.* Ignacio Montes, Enrique Miranda and Sébastien Destercke.
- *Efficient computation of belief theoretic conditionals.* Lalintha G. Polpitiya, Karmal Premaratne, Manohar N. Murthi and Dilip Sarkar.

Coffee break (20 mins)

**Round Table**

Chair: Alessandro Antonucci

10:20 - 11:20    *Open problems in imprecise probability theory.*

Break (10 mins)

## :: DAY 5 :: Friday morning @ room A11 ::

Poster Session III (11:30 - 12:30)

Chair: Jasper De Bock

### Poster-only contributions (with spotlight presentation)

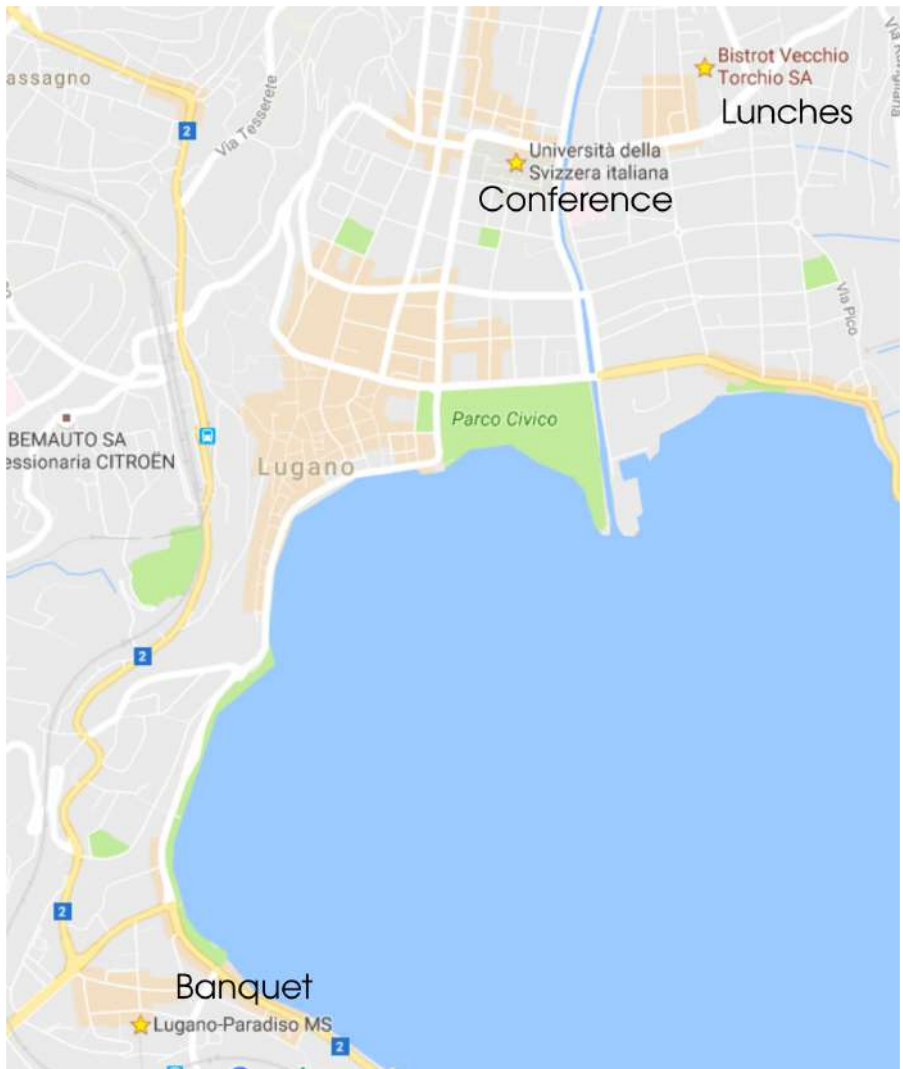
- *Dependence among probability boxes in fault trees.* Scott Ferson and Kari Sentz.
- *Beliefs and plausibilities in abstract interpretation.* Maja Kirkeby and Holger Bock Axelsen.
- *Imprecise classification of the gram status of the causal pathogen of clinical mastitis.* Meizhu Li, Jasper De Bock and Gert de Cooman.
- *The soft propagation algorithm: a proposal for responsive belief revision with Bayesian networks.* Sabina Marchetti.
- *Active elicitation of imprecise probability models.* Natan T'Joens, Gert de Cooman, Arthur Van Camp and Jasper De Bock.
- *(Irrelevant) natural extension of choice functions.* Arthur Van Camp, Gert de Cooman and Enrique Miranda.

### Regular papers (no spotlight presentation)

- *Weak Dutch Books versus strict consistency with lower previsions.* Chiara Corsato, Renato Pelessoni and Paolo Vicig.
- *Independent natural extension for infinite spaces: Williams-coherence to the rescue.* Jasper De Bock.
- *Efficient computation of updated lower expectations for imprecise continuous-time hidden Markov chains.* Thomas Krak, Jasper De Bock and Arno Siebes.

Closing (12:30 - 12:40)

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