Monday September 21st (morning)

8:30 – 9:00 Registration
9:00 – 9:30 Opening
Room G110 Jörgen Hansson, Director, School of Informatics, U. of Skövde
Yasuo Narukawa, PC Chair
Vicenç Torra, PC and General Chair
Anders Dahlbom, Organization Chair

9:30 – 10:30 Plenary
Room G110 Preference Learning: Machine Learning meets Preference Modeling
Eyke Hüllermeier
University of Paderborn (Germany)
Chair: Vicenç Torra

10:30 – 11:00 Coffee

11:00 – 12:00 Parallel Session A: Aggregation Operators and Decision Making
Room G110 Chair: José Luis García-Lapresta
Weighted quasi-arithmetic mean on two-dimensional regions and their applications
Yuji Yoshida
Multi-Criteria portfolio evaluation ensuring fairness in crisis management
Bénédicte Goujon, Christophe Labreuche
On a Representation of Fuzzy Weigh for Triple Inner Dependence AHP
Shin-ichi Ohnishi, Takashi Furukawa, Takahiro Yamanoi

Room G111 Parallel session B: Clustering
Chair: Yasunori Endo
On Possibilistic Clustering Methods Based on Shannon/Tsallis-entropy for
Spherical Data and Categorical Multivariate Data
Yuchi Kanzawa
On Cluster Validity Measures based x-means
Yukihiro Hamasuna Yasunori Endo
A unified theory of fuzzy c-means clustering models with improved partition
Laszlo Szilagyi

12:00 – 13:30 Lunch (Götasalen)
Monday September 21st (afternoon)

13:30 – 14:30  **Plenary**  
**Room G110**  
**Game-Theoretic Approaches to Decision Making in Cyber-Physical Systems Security**  
*Weiru Liu*  
Queen's University Belfast (UK)  
Chair: Masahiro Inuiguchi

14:30 – 15:30  **Plenary**  
**Room G110**  
**Statistical forecasting using belief functions**  
*Thierry Denoeux*  
Université de Technologie de Compiègne (France)  
Chair: Yasuo Narukawa

15:30 – 16:00 Coffee

16:00 – 17:20 **Parallel session A: Clustering**  
**Room G110**  
Chair: Yukihiro Hamasuna  
- Spherical k-Means++ Clustering  
  *Yasunori Endo, Sadaaki Miyamoto*  
- A Note on Non-Hierarchical Linguistic-based clustering  
  *Naohiko Kinoshita, Yasunori Endo, Yuchi Kanzawa, Sadaaki Miyamoto*  
- Semi-Supervised Switching and Sequential Regression Models Based on Least Absolute Deviations  
  *Hengjin Tang, Sadaaki Miyamoto, Yasunori Endo*  
- Reduction of Points for Clustering Network Data  
  *Sadaaki Miyamoto, Yusuke Tamura, So Miyahara*

**Parallel Session B: Social networks and privacy**  
**Room G111**  
Chair: Jun Long  
- An Evaluation of Edge Modification Techniques for Privacy-Preserving on Graphs  
  *Jordi Casas-Roma*  
- Co-Utile Collaborative Anonymization of Microdata  
  *Jordi Soria-Comas, Josep Domingo-Ferrer*  
- Generalization based k-anonymization  
  *Eva Armengol, Vicenc Torra*  
- Randomization of graphs preserving subgraphs and degrees  
  *Julián Salas*

18:30 – 21:00 Dinner Skövde Cultural Centre  
Sällskapet | Skövde Kulturhus  
[http://sallskapetskovde.se/](http://sallskapetskovde.se/)
Tuesday September 22nd

8:45 – 9:25 Parallel Session A: Logics
Room G110  Chair: Eva Armengol
The Complexity of 3-Valued Łukasiewicz Rules
Miquel Bofill, Felip Manyà, Amanda Vidal, Mateu Villaret
Information Theory for Subjective Logic
Tim Muller, Dongxia Wang, Audun Jøsang

Parallel Session B: Computational intelligence and optimization
Room G111  Chair: Yuchi Kanzawa
Comparing Multi-Objective Approaches for Air Route Planning in Hostile Environments
Tina Erlandsson
Optimized and Parallel Query Processing in Similarity-based Databases
Petr Krajca

9:30 – 10:30 Plenary
Room G110  Classifying large graphs with differential privacy
Devdatt Dubhashi
Chalmers University of Technology (Sweden)
Chair: Anders Dahlbom

10:30 – 11:00 Coffee

11:00 – 12:00 Parallel Session A: Fuzzy Integrals
Room G110  Chair: Katsushige Fujimoto
A comparison of the GAI model and the Choquet integral w.r.t. a k-ary capacity
Christophe Labreuche, Michel Grabisch
Distances on non-additive measures using the numerical Choquet integral
Vicenç Torra, Yasuo Narukawa
Inclusion-exclusion integral
Aoi Honda, Yoshiaki Okazaki

Parallel Session B: Computational intelligence and optimization
Room G111  Chair: Petr Krajca
The Stochastic Quasi-Gradient Method for Solving Possibilistic-Probabilistic optimization problems
Yulia Egorova, Alexandr Yazenin
The important features of anomaly detection based on visual acquisition technology
Qijia Zhao, Jun Long, Feng Fang, Zhiping Cai
Hesitant fuzzy sets in medical application
Laya Aliahmadipour, Esfandiar Eslami, Mahdi Eftekhari

12:00 – 13:30 Lunch (Götasalen)
13:30 – 14:30 Plenary
Room G110  Modeling the Complex Search Space of Data Privacy Problems
Bradley A Malin
Vanderbilt University (USA)
Chair: Josep Domingo-Ferrer

15:30 – 23:00 Excursion to Läckö Castle (Departure 15:30 near Hotel Majoren)
Tour (from 17:00)
Dinner at Hvita Hjorten (19:00)
http://www.lackoslott.se/
Wednesday September 23rd

8:30 – 9:30 Parallel session A: Preferences
Room G110  Chair: Yuji Yoshida
Estimating unknown values in reciprocal intuitionistic preference relations via asymmetric fuzzy preference relations
Francisco Chiclana, Raquel Ureña, Hamido Fujita, Enrique Herrera-Viedma
Handling Risk Attitudes for Preference Learning and Intelligent Decision Support
Camilo Franco, Jens Leth Hougaard, Kurt Nielsen
Representation of ordinal preferences over infinite products
Marta Cardin

Parallel session B: Data mining and decision making
Room G111  Chair: Jordi Casas-Roma
Semi-robust ordinal regression by an interval UTA method
M. Inuiguchi, A. Okumura, R. Slowinski, S. Greco
New results on hesitant fuzzy sets: score functions
Yasuho Narukawa, Vicenç Torra
The notion of Pre-aggregation functions
Giancarlo Lucca, José Antonio Sanz, Graçaliz Pereira Dimuro, Benjamin Bedregal, Radko Mesiar, Anna Kolesárová, Humberto Bustince

9:30 – 10:30 Plenary
Room G110  Privacy and Transparency for Decision Making
Simone Fischer-Huebner
Karlstad University (Sweden)
Chair: Klara Stokes

10:30 – 11:00 Coffee

11:00 – 11:40 Parallel session A: Aggregation Operators
Room G110  Chair: Marta Cardin
Aggregating opinions in non-uniform qualitative scales
José Luis García-Lapresta and David Pérez-Román
Effective MVU via central prototypes and kernel ridge regression
Carlotta Orsenigo

11:40 – 12:00 Closing ceremony
Room G110

12:00 – 13:30 Lunch (Götasalen)