

The 10th International Conference on Modeling Decisions for Artificial Intelligence

Barcelona, Catalonia, November 20-22, 2013 http://www.mdai.cat/mdai2013

November 20th, Wednesday

8:45 - 9:15 Registration

9:15 - 9:30 Opening session

9:30 - 10:30 Plenary talk

Some new domain restrictions in social choice, and their consequences Salvador Barberà

Chair: V. Torra

10:30 - 11:10 Parallel Sessions

Session A. Aggregation Operators I

Chair: Tetsuya Murai

Weighted quasi-arithmetic means: Utility functions and weighting functions Yuji Yoshida

Toward a general framework for information fusion

Didier Dubois, Weiru Liu, Jianbing Ma, Henri Prade

Session B. Computational Intelligence and Optimization

Chair: Sandra Sandri

Landmark selection for isometric feature mapping based on mixed-integer optimization Carlotta Orsenigo, Carlo Vercellis

Rough c-Regression based on Optimization of Objective Function Yasunori Endo, Akira Sugawara, Naohiko Kinoshita

11:10 - 11:40 Coffee break

11:40 - 12:40 Parallel Sessions

Session A. Aggregation Operators II

Chair: Katsushige Fujimoto

Facility Location and Social Choice via Microaggregation Josep Domingo-Ferrer

Web 2.0 Tools to Support Decision Making in Enterprise Contexts Raquel Ureña, Enrique Herrera-Viedma

On fuzzy weight compositions for double inner dependence AHP Shin-ichi OHNISHI, Takashi FURUKAWA, Takahiro YAMANOI

Session B. Applications

Chair: Yasunori Endo

An Ethical DNA Model for Artificial General Intelligence R.C. Ennis

Measuring consistency of classification in the context of temporal evolution Jonas Henrique Mendonça, Isabel Escada, Sandra Sandri

Using The Logarithmic Generator Function in the Spoken Term Detection Task Gábor Gosztolya

12:40 - 15:00 Lunch

15:00 - 16:00 Plenary talk

A Way to Choquet Calculus Michio Sugeno Chair: Y. Narukawa

16:00 - 16:30 Coffee break

16:30 - 17:30 Parallel Sessions

Session A. Aggregation Operators III

Chair: Aoi Honda

k-Monotonicity-preserving restriction in communication games Katsushige Fujimoto

Distances for non-additive measures Vicenc Torra, Yasuo Narukawa, Michio Sugeno, Michael Carlson

Ordering Pareto Sets with Fuzzy Inference Systems Sandra Sandri, José Carlos Becceneri, Roberto Luiz Galski

Session B. Machine Learning and Applications

Chair: Masahiro Inuiguchi

Emotion Detection using Hybrid Structural and Appearance Descriptors David Sanchez-Mendoza, David Masip, Xavier Baró, Ágata Lapedriza

A Lazy Learning Approach for Self-Training Eva Armengol

Combining Recommender and Reputation Systems to Produce Better Online Advice Audun Jøsang, Guibing Guo, Maria Silvia Pini, Francesco Santini, Yue Xu

November 21th, Thursday

9:30 - 10:30 Plenary talk

Decision making: From penalty functions to interval-valued fuzzy sets

Humberto Bustince Chair: V. Torra

10:30 - 11:10 Parallel Sessions

Session A. Information fusion

Chair: Jøsang Audun

Multi-granular Fusion for Social Data Analysis for a Decision and Intelligence Application Claire Laudy, Etienne Deparis, Gaëlle Lortal, Juliette Mattioli

A Comparison of Two Approaches for Situation Detection in an Air-to-Air Combat Scenario Anders Dahlbom

Session B. Dependencies and constraints

Chair: Carlotta Orsenigo

Representation of the decision maker's preference on robust constraints in fuzzy linear programming Masahiro Inuiguchi, Tatsuya Higuchi

Attribute dependencies in incomplete binary data Michal Krupka, Jan Lastovicka, Petr Osicka

11:10 - 11:40 Coffee break

11:40 - 12:40 Parallel Sessions

Session A. Clustering and similarities

Chair: Laszlo Szilagyi

Generalization of Quadratic Regularized and Standard Fuzzy c-Means Clustering with respect to Regularization of Hard c-Means

Yuchi Kanzawa

On Sequential Cluster Extraction Based on L1-Regularized Possibilistic Non-metric Model Yukihiro HAMASUNA, Yasunori ENDO

Query Optimization Strategies in Similarity-Based Databases Petr Krajca, Vilem Vychodil

Session B. Applications

Chair: Eva Armengol

Identification, Extraction and Measurement of Memes in Free Text Online Forums Hector Beck-Fernandez, David F. Nettleton

Pushing Constraints into a Pattern-Tree Andreia Silva, Cláudia Antunes

Robustness of STRIM for Rule Induction from the Decision Table with Missing Condition Attribute and Contaminated Decision Attribute Values
Yuichi Kato, Tetsuro Saeki, Shotaro Mizuno

12:40 - 15:00 Lunch

15:00 - 16:00 Plenary talk

Theory and applications of non-additive measures and corresponding integrals Endre Pap

Chair: Y. Narukawa

November 22nd, Friday

9:30 - 10:30 Plenary talk

Preference-Based Optimization using Rank-dependent Aggregation Functions Patrice Perny

Chair: V. Torra

10:30 - 11:10 Parallel Sessions

Session A. Social Networks

Chair: David Nettleton

Improving automatic edge selection for relational classification Cristina Pérez-Solà, Jordi Herrera-Joancomartí

Analyzing the Impact of Edge Modications on Networks Jordi Casas-Roma, Jordi Herrera-Joancomartí, Vicenç Torra

Session B. Fuzzy Consequence Operators and t-Norms

Chair: Humberto Bustince

Permutability of Fuzzy Consequence Operators Induced by Fuzzy Relations Neus Carmona, Jorge Elorza, Jordi Recasens, Jean Bragard

On generating functions of two-dimensional t-norms Masaya Nohmi, Aoi Honda, and Yoshiaki Okazaki

11:10 - 11:40 Coffee break

11:40 - 12:40 Parallel Sessions

Session A. Clustering and similarities

Chair: Vilem Vychodil

Semi-Supervised Sequential Kernel Regression Models with Pairwise Constraints Hengjin TANG, Sadaaki MIYAMOTO

Variables for Controlling Cluster Sizes on Fuzzy c-means Yoshiyuki KOMAZAKI, Sadaaki MIYAMOTO

Fast Implementations of Markov Clustering for Protein Sequence Grouping Laszlo Szilagyi, Sandor Miklos Szilagyi

Session B. Formal issues

Chair: Yuji Yoshida

The Property of X^2_{01} -concordance for Bayesian Confirmation Measures Robert Susmaga and Izabela Szczech

Fuzzy Multisets in Granular Hierarchical Structures Generated from Free Monoids Tetsuya Murai, Sadaaki Miyamoto, Masahiro Inuiguchi, Yasuo Kudo, Seiki Akama

Interval optimizations on F-response analysis Ryoji Fukuda, Aoi Honda, Akiko Hachisuka, Kenji Hachisuka

12:40 - 13:00 Closing session