

30 August (Tuesday)

14:00 Inscriptions

14.45 Opening

15:00 – 16:20 Session 1. Aggregation and uncertainty

A Multi-Perceptual-Based Approach for Group Decision Aiding

Olga Porro Martorell, Núria Agell Jané, Mónica Sánchez Soler, Francisco J Ruiz Vegas

Fuzzy measures, scales, integrals, and distances

Shekhar Negi, Vicenç Torra

Semiring-valued fuzzy rough sets and colour segmentation

Jiří Močkoř, Petr Hurtik

Zero Additivization of a Monotone Measure on a Finite Set

Ryoji Fukuda, Aoi Honda, Yoshiaki Okazaki

16:30 – 17:00 Coffee break

Visit to Sant Cugat

31 August (Wednesday)

9:30 Plenary. Anna Monreale.

Explaining Black Box Classifiers by exploiting Auto-Encoders

10:30 – 11:00 Coffee break

11:00 – 11:40 Session 2. Uncertainty

Stochastic Optimality Analysis for LP Problems under Uncertainty

Zhenzhong Gao, Masahiro Inuiguchi

Probabilistic Judgement Aggregation by Opinion Update

Magdalena Ivanovska, Marija Slavkovic,

11:50 – 12:50 Session 3. Privacy

Geolocated Data Generation and Protection Using Generative Adversarial Networks

Hugo Alatrasta-Salas, Peter Montalvo-Garcia, Miguel Nunez-del-Prado, Julian Salas

Reducing membership inference attacks in federated learning

Sudipta Paul, Vicenç Torra

Explainability and privacy, finding a trade-off

Aso Bozorgpanah, Vicenç Torra

13:00 – 14:00 Lunch

14:30 – 18:30 EXCURSION

1 September (Thursday)

9:30 Plenary. Anna Ginés
The labor impacts of algorithmic management

10:30 – 11:00 Coffee break

11:00 – 12:00 Session 6. Privacy

Bistochastic privacy
Nicolas Ruiz, Josep Domingo-Ferrer
Improvement of Estimate Distribution with Local Differential Privacy
Hikaru Horigome, Hiroaki Kikuchi
On federated learning and decision trees
Saloni Kwatra, Vicenç Torra

12:10 – 13:10 Session 7. Data science

Identification of Subjects Wearing a Surgical Mask from their Speech by means of x-vectors and Fisher Vectors
José Vicente Egas-López, Gábor Gosztolya
Measuring Fairness in Machine Learning models via Counterfactual Examples
Rami Haffar, Ashneet Khandpur Singh, Josep Domingo-Ferrer, and Najeeb Jebreel
Re-Calibrating Machine Learning Models using Confidence Interval Bounds
Andrea Campagner, Lorenzo Famiglini, Federico Cabitza

13:10 – 14:30 LUNCH

14:30 – 15:30 Session 4. Machine learning

An Analysis of Byzantine-Tolerant Aggregation Mechanisms on Model Poisoning in Federated Learning
Mary Roszel, Robert Norvill, and Radu State
Effective Early Stopping of Point Cloud Neural Networks
Thanasis Zoumpekas, Maria Salamó, Anna Puig
Representation and Interpretability of IE Integral Neural Networks
Aoi Honda, Yudai Kamata, Simon James

15:30 – 16:00 Coffee break

16:00 – 17:00 Session 5. Data science

Deep Attributed Graph Embeddings
Elisabetta Fersini, Simone Mottadelli, Michele Carbonera, Enza Messina
Dimensionality Reduction of Multivariate Spatio-Temporal Data using Pre-attentive Features
Rui Maia, Cláudia Antunes
Detecting Mild Cognitive Impairment Using Fisher Vectors
José Vicente Egas-López, Réka Balogh, Nóra Imre, Ildikó Hoffmann, László Tóth, Magdolna Pákáski, János Kálmán, Gábor Gosztolya

20:00 Gala Diner

2 September

9:30 Plenary. Clara Granell.
Mathematical Modeling of COVID-19 from a Complex Systems Perspective

10:30 – 10:50 Coffee break

10:50 – 11:50 Session 8. Fuzzy sets and systems

Aggregation for Hesitant Fuzzy sets
Yasuo Narukawa, Vicenç Torra

The state of the art of fuzzy rule based systems: A discussion

Ayush Kumar Varshney, Vicenç Torra

Parametric Extension of q-Divergence-based Fuzzy Clustering for Spherical Data

Yuchi Kanzawa

12:00 – 13:00 Session 9. Machine learning

DANKFE-I: a domain knowledge based algorithm for feature engineering

Tiago Afonso, Cláudia Antunes

Estimation of Prediction Error with Regression Trees

Eva Armengol

A Strategic Approach based on AND-OR Recommendation Trees for Updating Obsolete Information

Salma Chaieb, Ali Ben Mrad, Brahim Hnich

13:00 Closing ceremony

13:15 – 14:00 LUNCH