ISAS 2018

International Symposium on Aggregation and Structures

July 2–5, 2018, Valladolid (Spain)

Program

Monday, July 2

10:00	Registration
10:15	Opening

10:30–11:30 Invited speaker: **Jean-Luc Marichal**
Title: *Associative and Quasitrivial Operations on Finite Sets: Characterizations and Enumeration*
Chair: Radko Mesiar

11:30–12:00 Coffee break

12:00–13:00 **Session 1:** *Aggregation functions.* Chair: Marta Cardin
- *On Associative, Idempotent, Symmetric, and Nondecreasing Operations*
    Jimmy Devillet and Bruno Teheux
- *On a New Construction Method of Fuzzy Sheffer Stroke Operation*
    Pedro Berruezo, Piotr Helbin, Wanda Niemyska, Michal Baczyński, Sebastià Massanet and Daniel Ruiz-Aguilera

13:30 Lunch

15:30–17:00 **Session 2:** *Aggregation on posets and lattices I.* Chair: Martin Kalina
- *Some Results on Internal and Locally Internal Uninorms on Bounded Lattices*
    Gül Deniz Çaylı, Funda Karaçal and Radko Mesiar
- *Generating Sets of Idempotent Aggregation Clones on Bounded Lattices and Their Minimality*
    Radomír Halaš, Radko Mesiar and Jozef Pócs
- *A Note on Generating Sets for Aggregation Clones on Finite Lattices*
    Radomír Halăs, Radko Mesiar and Jozef Pócs

17:00–17:30 Coffee break

17:30–18:30 **Session 3:** *New directions I.* Chair: Salvatore Greco
- *Extending Aggregation Functions for Undefined Inputs*
    Libor Běhounek and Martina Daňková
- *Aggregation vs. Disaggregation: A Geometrical Approach*
    María Jesús Campión, Esteban Induráin and Armajac Raventós

Tuesday, July 3

10:00–11:00 Invited speaker: **Salvatore Greco**
Title: *The Bipolar Pawlak-Brouwer-Zadeh Lattice as a Grammar for Reasoning on Data in Multiple Criteria Decision Aiding Using Dominance-Based Rough Set Approach*
Chair: Bernard De Baets

11:00–11:30 Coffee break

11:30–13:00 **Session 4:** *Mathematical aspects I.* Chair: Bruno Teheux
– *A Mathematical Study of the Order Structure of Distributed Systems*
        Asier Estevan
– *The Topological Spaces Induced from the Families of the Functions*
        Funda Karaçal, M. Nesibe Kesicioğlu and Ümit Ertuğrul
– *The Topological Spaces Obtained from $C_{U,A}^*$*
        Funda Karaçal, Ümit Ertuğrul and M. Nesibe Kesicioğlu

13:30 Lunch

15:30–17:00 **Session 5:** *New directions II.* Chair: Irina Perfilieva
– *On the Definition of a Penalty Function in and beyond the Framework of Real Numbers*
        Bernard De Baets and Raúl Pérez-Fernández
– *An n-ary Generalization of the Concept of Distance*
        Gergely Kiss, Jean-Luc Marichal and Bruno Teheux
– *A General Approach to Aggregation Operators*
        Marta Cardin

17:00–17:30 Coffee break

17:30–18:30 **Session 6:** *Aggregation on posets and lattices II.* Chair: Jozef Pócs
– *New Approaches for Defining OWA Operators on Partially Ordered Sets*
        Daniel Paternain, LeSheng Jin, Humberto Bustince and Radko Mesiar
– *Continuity and Divisibility of Monotone Binary Operations on Bounded Posets*
        Martin Kalina

19:30 Guided tour

Wednesday, July 4

10:00–11:00 Invited speaker: **Irina Perfilieva**
Title: *Nonlocal Operators for Dimensionality Reduction and Image Inpainting*
Chair: Funda Karaçal

11:00–11:30 Coffee break

11:30–13:00 **Session 7:** *Applications.* Chair: Jean-Luc Marichal
 − *First-Order Then-Aggregate Strategies to Solve the Optimal Bucket Order Problem*
  Juan A. Aledo, José A. Gámez and Alejandro Rosete
 − *A Computationally Expedient Social-Choice Related Property for Group Decision-Making*
  Yeawon Yoo and Adolfo R. Escobedo
 − *F-transform with Undefined Inputs*
  Martina Daňková

13:30 Lunch

16:00–17:30 **Session 8:** *Aggregation of Qualitative and Quantitative Information.* Chair: Manuel Úbeda-Flores
 − *Poverty Trends in Europe: A Multivariate Dependence Analysis Based on Copulas*
  César García-Gómez, Ana Pérez and Mercedes Prieto-Alaiz
 − *Joint Aggregation of Rankings and Ordinal Labels: A Case Study in Food Science*
  Raúl Pérez-Fernández, Marc Sader and Bernard De Baets
 − *Aggregating Quantitative and Qualitative Assessments in Multidimensional Welfare*
  José Luis García-Lapresta and Casilda Lasso de la Vega

20:30 Gala dinner

Thursday, July 5

10:30–11:30 Invited speaker: **Manuel Úbeda-Flores**
Title: *Constructing Copulas with Given Diagonal and Opposite Diagonal Sections*
Chair: Ana Pérez

11:30–12:00 Coffee break

12:00–13:00 **Session 9:** *Mathematical aspects II.* Chair: Miguel Martínez-Panero
 − *An Alexandroff Topology Obtained from Uninorms*
  Tuncay Köroğlu and Funda Karaçal
 − *Some Properties of the Equivalence Relations Induced by the U-Partial Orders*
  M. Nesibe Kesicioğlu, Ümit Ertuğrul and Funda Karaçal

13:30 Lunch