

1st Iberian Conference on Multi-Criteria Decision Making/Analysis (IMCDM/MCDA 2025)

University of Coimbra, May 8-9th 2025

Program

Oral communications

May 8th

10:00 – 11:00	Registration
11:00 – 11:30	Opening session – Antonio Jiménez-Martín, Carlos Henggeler Antunes
11:30 – 12:30	Keynote 1 – Chair: Begoña Vitoriano Villanueva Francisco Ruiz - Interactive Multiobjective Optimization Methods: Trading Off and Desirable Properties
12:30 – 13:30	Contributed session 1 – Energy applications; Chair: Ana Soares Muhammad Tanveer ul Islam - Prioritising Municipal Photovoltaic Initiatives Using Multi-Criteria Decision Analysis Felipe Henao - A Bi-Objective Optimization Approach to Reducing Energy Poverty Through Biomass Gasification: The Case of Rural Colombia Aitor Hernández - A semivectorial bilevel optimization model to optimize energy prices at charging stations for electric vehicles
13:30 – 15:00	Lunch
15:00 – 16:20	Contributed session 2 – Multi-Criteria Decision Analysis I; Chair: Luís Dias Antonio Jiménez-Martín - WEB-MAUT-DSS. A web-based DSS based on MAUT to deal with partial/incomplete information Néstor Velaz-Acera - Multi-criteria decision methods for Urban Heat Island identification using Geographic Information Systems João Monteiro - Urban Form and Function: A Multi-Criteria Decision Analysis Approach Robert A. Edgell - A Transition-Centric Meta-Framework for Selecting Multi-Criteria Decision Applications in Sustainability Challenges
16:20 – 16:50	Poster session + Coffee break
16:50 – 18:10	Contributed session 3 – Multi-Objective Optimization; Chair: Alfonso Mateos Caballero Alfonso Mateos Caballero - Enhanced BPSO for Binary Optimization: A Robust Metaheuristic for Complex Problems (RRPS-PAT) Antonio Borrego - New insights in Evolutionary Multiobjective Optimization: Adaptive reference points and weight vectors to improve convergence and solutions distribution Begoña Vitoriano - Multiobjective stochastic optimisation for long and short-term planning of prepositioning in humanitarian logistics Andrea Orozco-Villodres - How to Enhance Students Well-Being in Spain: A Multidimensional Study based on Multiobjective Optimization
20:00	Dinner

May 9th

9:40 – 11:00	Contributed session 4 - Multi-Criteria Decision Analysis II; Chair: Mónica Oliveira Rafael Miranda - A collaborative dashboard-building approach combining business intelligence and socio-technical multicriteria decision analysis: a tool to assist decision-makers in health settings Milad Zamanifar - Ordinal Rank-based Preference Elicitation Model for Assigning Weight to Decision Criteria Daniel Corrales - Leveraging MCDA for Colorectal Cancer Screening Strategies Nelson Hein - Dynamic Weights and the ADRIANA Method
11:00 – 11:30	Coffee-break + Poster session
11:30 – 12:50	Contributed session 5 – Economics and Industry; Chair: Amelia Bilbao Terol Joana Almeida - Energy Expenditure and Ergonomic Risk in Industrial Task Assessment using TOPSIS José M. Cabello - A partially compensatory composite indicator based on multiple reference points. Application to the Economic Freedom Index Alejandro Balbás - Optimal comonotonic actuarial risk redistribution Ana Moura - Selection of Bottleneck Detection Methods Using Multi-Criteria Decision-Making
13:00 – 14:30	Lunch
14:30 – 15:30	Keynote 2 – Chair: Carlos Henggeler Antunes Ana Póvoa - Multi-Objective Optimization for Sustainable Supply Chain Design and Planning
15:30 - 16:30	PhD thesis awards – Chair: Miguel Ángel Hinojosa Ramos Francisco Martos Barrachina - A re-examination of the menu planning problem from a multiobjective optimization perspective: The SHARP approach Felipe Barrera Jiménez - Multicriteria techniques for sustainable supply chain management
16:30 – 16:45	Closing session – Antonio Jiménez-Martín, Carlos Henggeler Antunes
16:45 - 17:15	Meeting GEDM y SEIO-Working Group

May 10th

9:00 – 11:00	Visit to the UNESCO World Heritage area and buildings
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Posters

Adolfo Hilario-Caballero - High-dimensional portfolio optimization with an evolutionary multi-objective algorithm implemented in Python: evMOGAportPy

Adriana Kroenke - Cultural entropy in a hospital environment: a multicriterial and multilevel study

Amelia Bilbao-Terol - Machine Learning-Enhanced Sustainable Portfolio Optimization

Amelia Bilbao-Terol - Multi-Criteria Decision-Making for a Sustainable Renewable Energy Mix

Amelia Bilbao-Terol - Socially responsible investment: application to the market of renewable energy companies

Asunción Zapata Reina - On rationalizability in weighted maxmin games

Chiang Kao - Measuring the enterprise competitiveness of Taiwanese listed companies: A compromise solution approach

Daiana Ivis Suárez Ordaz - Selecting optimal sites for green hydrogen production plants in Arica region: a composite indicator approach

Flípe Pais - A Multicriteria Methodology for Maintenance Planning of Cycling Infrastructure

João Paulo Costa - Computing the Pareto front in Multiobjective Linear Mixed Integer Fractional Programming

M^a Ángeles Caraballo Pou - Multicriteria Analysis of Other-Regarding Behavior in Oligopolies with Penalties

Miguel Angel Hinojosa Ramos - A cooperative game theory approach to cost sharing in capacity synthesis problems. A bi-criteria model

Mónica Hernández Huelin - A Comprehensive Approach to the Menu Planning Problem

Sandra González-Gallardo - Using Composite Quality Indicators to Assess Population-Based Algorithms

Sandra Tralhão - A Dynamic Decision-Support Approach for the Performance Assessment of Water Utilities in Portugal

Tiago Miguel - Optimizing Financial Education for Portuguese Youth: An AHP-Based Analysis