

# EURO PhD SCHOOL on Multiple Criteria Decision Making

## Methodologies and Applications to the Sustainable Development Goals



### Practical information

- ▶ Web page: <http://eventos.uma.es/go/EUROPhD2024>
- ▶ Dates: November 4 - 15, 2024
- ▶ Location: Facultad de Marketing y Gestión, Universidad de Malaga - Campus de Teatinos. 29071, Malaga (Spain)
- ▶ Application deadline: July 17, 2024
- ▶ Notification of acceptance: September 13, 2024
- ▶ Maximum number of participants: 30
- ▶ ECTS Credits: 3 → 75 hours
  - Classes: 2-3 hours/day; Supervised training: 2-3 hours/day; Personal work: 2.5 hours/day
- ▶ An activity of the PhD Programme in Economics and Business, University of Malaga (Spain)

### Contents

The aim of the PhD School is to introduce students in discrete and continuous Multiple Criteria Decision Making problems and their applications. To this end, contents are as follows:

1. Basic Concepts on Multiple Criteria Decision Making
2. Discrete Multicriteria methods: MAUT, AHP and outranking methods
3. Group Decision Making
4. Continuous problems: generating the efficient set
5. Goal Programming
6. Interactive methods

### Provisional timetable

- ▶ Classes: 9:30h - 11:30h
- ▶ Supervised training: 12:00h - 13:30h & 15:00h - 16:30h
- ▶ Personal work: 16:30h - 19:30h

Week 1 - Discrete MCDM methods	
Day 1	Opening session. Introduction to MCDM problems
Day 2	Analytic Hierarchy Process
Day 3	Multi-Attribute Utility/Value Theory
Day 4	Outranking methods
Day 5	Posters Session

Week 2 - Continuous MCDM methods	
Day 1	Efficiency analysis
Day 2	Goal Programming
Day 3	Reference point and interactive Methods
Day 4	Caseworks
Day 5	Presentations of discrete and continuous caseworks

### Sponsors

- ▶ Theme Net on Multiple Criteria Decision Making (RED2022-134540-T), financed by MICIU/AEI/10.13039/501100011033
- ▶ Fundación Unicaja
- ▶ Sociedad Española de Estadística e Investigación Operativa (SEIO)
- ▶ Research projects PID2020-115429GB-I00 & PID2022-139543OB-C42, financed by MICIU/AEI/10.13039/501100011033
- ▶ Asociación Española de Profesores Universitarios de Matemáticas para la Economía y la Empresa (ASEPUMA)
- ▶ Málaga Convention Bureau
- ▶ Metro Málaga
- ▶ PhD Program in economy and Business, University of Málaga

### Contact

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### Scientific Committee

- ▶ AMELIA MARÍA BILBAO. Co-chair. (University of Oviedo, Spain)
- ▶ ANTONIO JIMÉNEZ. Co-chair. (Technical University of Madrid, Spain)
- ▶ ALESSIO ISHIZAKA (NEOMA Business School, France)
- ▶ AMPARO MÁRMOL (University of Sevilla, Spain)
- ▶ KAISA MIETTINEN (University of Jyväskylä, Finland)
- ▶ JOSÉ MARÍA MORENO (University of Zaragoza, Spain)
- ▶ FRANCISCO RUIZ (University of Málaga, Spain)
- ▶ BEGOÑA VITORIANO (University Complutense of Madrid, Spain)

### Instructors

- ▶ LAURA DELGADO ANTEQUERA - University of Malaga, Spain
- ▶ SAMIRA EL GIBARI BEN SAID - University of Malaga, Spain
- ▶ GABRIELA FERNÁNDEZ BARBERIS - University San Pablo CEU, Spain
- ▶ SANDRA GONZALEZ GALLARDO - University of Malaga, Spain
- ▶ ALESSIO ISHIZAKA - NEOMA Business School, France
- ▶ ANTONIO JIMÉNEZ - Technical University of Madrid, Spain
- ▶ DYLAN JONES - University of Portsmouth, UK
- ▶ KAISA MIETTINEN - University of Jyväskylä, Finland
- ▶ JOSÉ MARÍA MORENO - University of Zaragoza, Spain
- ▶ FRANCISCO RUIZ - University of Malaga, Spain

### Methodology

- ▶ Students will work in groups
- ▶ Two different problems (caseworks) will be assigned to each group on Day 1
- ▶ Students will work on the assigned problems throughout the course, following each day this scheme:
  - 2-3 hours of theoretical classes where new concepts and methods are introduced
  - 2-3 hours of supervised training in a computing classroom
  - 2.5 hours of personal work
- ▶ The problems will belong to different fields, especially focused on sustainability problems

### Terms & conditions

- 1. Admission:** To apply to the EPS, candidates from a EURO member society country, or studying in a EURO member society country, should submit the following information to [rua@uma.es](mailto:rua@uma.es):
  - curriculum vitae (including their academic track record)
  - a letter outlining their motivation to attend
  - a letter of recommendation from their supervisor
- 2. Financial arrangements:** Registration fee → 200 €
  - All living costs (accommodation, meals, and travel within school activities) are supported by the EPS. No insurance will cover the participants
  - Travel costs should be covered by the participants
- 3. Accomodation:**
  - Accommodation is provided in Albergue Inturjovent Málaga (Address: Plaza Pío XII, 6, 29007 Málaga)
- 4. Social activities:**
  - Activities such as meals, tourist visits etc. will be organised for the participants (free of charge) in order to stimulate friendly relations

