

# International Society on Multiple Criteria Decision Making



E-News • 2017 • Issue 2 (September)





## Contents

<b>Letter from the President .....</b>	<b>1</b>
<b>1 Society News.....</b>	<b>3</b>
1.1 The 24 <sup>th</sup> International Conference on Multiple Criteria Decision Making .....	3
1.2 Report on the MCDM Awards 2017 .....	8
1.3 Report about the 2017 MCDM Doctoral Dissertation Competition in Ottawa .....	9
1.4 A First Announcement: 25 <sup>th</sup> International Conference on Multiple Criteria Decision Making (MCDM 2017) in Istanbul .....	10
1.5 Announcement of the MCDA/MCDM Summer School 2018.....	11
1.6 Society Elections .....	12
<b>2 Obituaries.....</b>	<b>15</b>
2.1 Abe Feinberg in memoriam .....	15
2.2 Eric Jaquet-Lagrece in memoriam .....	16
2.3 Ândrzej Lewandowski in memoriam .....	17
2.4 Thomas Saaty in memoriam.....	19
<b>3 Upcoming Events, Call for Papers, and other News .....</b>	<b>21</b>
3.1 Journal of Multi-Criteria Decision Analysis .....	21
3.2 International Journal of Multicriteria Decision Making .....	22
3.3 International Journal of Production Research .....	23
3.4 Annals of Operations Research .....	25
3.5 European Journal for Decision Processes .....	26
3.6 Operations Research for Health Care.....	27
3.7 International Journal of Information Technology & Decision Making .....	29
3.8 Group Decision and Negotiation Conference (GDN 2018).....	30
3.9 The 7th International Conference on Multidimensional Finance, Insurance and Investment (ICMFII'18) .....	31
<b>4 Job Market.....</b>	<b>33</b>
<b>5 New Books/Publications.....</b>	<b>35</b>
5.1 Books and Book Chapters .....	35
5.2 Journal Papers .....	35
5.3 Conference Proceedings.....	40
5.4 Reports .....	41
<b>6 Past Conferences, Workshops, and other News .....</b>	<b>42</b>
6.1 Information about the IFORS Developing Countries On-Line Resources .....	42
<b>7 Imprints.....</b>	<b>43</b>

## Letter from the President

Dear Members of the International Society on MCDM,

I am delighted to address you again with the new issue of our newsletter.

Unfortunately, I will start with sad news we heard over the last several months. It saddens me greatly to tell you that four of the major contributors of our field, Abe Feinberg, Eric Jacquet-Lagrange, Andrzej Lewandowski, and Thomas Saaty, have passed away. You can read the obituaries written by their close colleagues in this issue.

As you know, every two years four of the Executive Committee member positions are up for election. I would like to thank the retiring members Kathrin Klamroth, Pekka Korhonen, Hirotaka Nakayama, and Martin Geiger for their services to our Society as members of the Executive Committee during the last four years. You will find the candidates nominated for the four positions in this newsletter. Each member will soon receive an e-mail with instructions to vote. Please make sure that your e-mails are up-to-date in the membership database. I encourage every member to vote so that the results represent the choices of a high proportion of our membership.



I had mentioned before that we moved our web site and database to the cloud. We recently moved our discussion list to the cloud as well. Now all these services are maintained professionally and are independent of the institutions of the Society officers. I would like to thank once again the University of Jyväskylä for providing these services for many years.

Our 24<sup>th</sup> International Conference was held in Ottawa, Canada in July. This was the return of our conference to North America after 13 years. We thank Sarah Ben Amor and her colleagues for all their efforts in putting together such a well-organized conference. The conference was a great success both scientifically and socially, and we once again experienced all the great traditions of our Society. It will be difficult to wait two years until the next conference. You will find the details of some of the conference events in this newsletter, and I will highlight several of them below.

The Society awards were given at the banquet of the conference. José Rui Figuera, Wojtek Michalowski, and Kaisa Miettinen were the recipients of the MCDM Gold Medal, the Edgeworth-Pareto Award, and the Georg Cantor Award, respectively. Sarah Ben Amor received the Conference Chairperson award in recognition of her leadership in organizing the conference. Congratulations to Jose, Wojtek, Kaisa, and Sarah for these well-deserved awards.

The Doctoral Dissertation Award was also presented at the banquet. Britta Schulze received the award for her dissertation “New Perspectives on Multi-Objective Knapsack Problems.” Congratulations to Britta for her impressive work. Congratulations are also in order for finalists Hadi Charkhard and Giovanni Palmisano. I am delighted to see the important contributions of the young scholars and trust that the future of MCDM is in good hands.

It has become a tradition in recent years to edit special issues for several journals after our conferences. You will find the Calls for Papers in this newsletter. I encourage the members of our Society to submit their high quality work for these special issues.

I have been expressing my admiration for the MCDA/M Summer Schools in their roles for the future of our field. Along with this observation, I am delighted to report that we have decided to increase the frequency of summer schools from being held triennially to biennially. The 13<sup>th</sup> MCDA/M Summer School will be organized by Constantin Zopounidis and his colleagues in beautiful Chania, Greece, during July 23 - August 3, 2018. You will find further details and deadlines in this newsletter. I urge graduate students to apply and advisors to encourage and finance their students to attend. This is a great investment in young MCDM researchers.

Our 25<sup>th</sup> International Conference on MCDM will be organized by İlker Topçu and his colleagues in İstanbul, June 16-21, 2019. I can't wait to see many of you there.

We are making a small change in the timing of the February issue of the Newsletter. We will publish it a little earlier to give more time to the readers to respond to the Calls for Papers published in that issue. These issues will be published around the 20<sup>th</sup> of January, and hence will be called January issues. Please send your contributions to the Editor by January 10<sup>th</sup>.

I would like to thank Johannes Siebert and his editorial team for doing such a superb job in putting together all the relevant information and publishing this Newsletter twice a year.

*Murat Köksalan*

President of the International Society on MCDM

President (at) mcdmsociety.org

August 28, 2015

Washington DC

Note: Please remember that you can reach the officers of the Society at the following addresses:

president (at) mcdmsociety.org

president-elect (at)mcdmsociety.org

secretary (at) mcdmsociety.org

mcdm-award (at) mcdmsociety.org

phdaward (at) mcdmsociety.org

newsletter (at) mcdmsociety.org

# 1 Society News

## 1.1 *The 24<sup>th</sup> International Conference on Multiple Criteria Decision Making*



The 24<sup>th</sup> edition of the International Conference on Multiple Criteria Decision Making (MCDM 2017) was held at the Telfer School of Management, University of Ottawa, on July 10-14, 2017.

It has been over ten years now that the last MCDM international conference was held in Canada, in Whistler in 2004. This year, the conference gathered 200 participants plus 7 accompanying persons from 27 countries. More than 60 participants were students and 12 participants were from Industries.

The conference had a topical theme: Creating a Sustainable Society. The call for papers, designed to encourage contributions that highlight the latest application of MCDM tools to sustainable management challenges, was largely answered.

The scientific program included 173 talks and 10 poster presentations. A total number of 173 talks and 10 poster presentations have been scheduled in 4 parallel sessions. Eighty-seven talks, including the 10 posters, were in contributed sessions, the remainder were distributed among 19 invited sessions. Also in the program were 9 special sessions that include the opening and closing sessions, the 4 plenary addresses, the doctoral dissertation session, the awards session, and the business meeting.

The 4 plenary talks were delivered by

- Blair Feltmate of the Intact Centre on Climate Adaptation at the University of Waterloo: Un-Natural Alliances: Financial and Ecological Expertise Must Align to Address the Contagion of Climate Change
- Jyrki Wallenius from the Aalto University School of Business: A Voting Advice Model and Its Application to Parliamentary Elections in Finland
- Tuure Tuunanen from the University of Jyväskylä: Design Science Research: Theory Ingrained Artifact and Deriving Theories from Artifact
- Jack Kitts, President and Chief Executive Office of the Ottawa Hospital: Is it possible to create a sustainable healthcare system in Canada?



**Figure 1: Blair Feltmate, Jyrki Wallenius, Tuure Tuunanen, and Jack Kitts**

The conference organization granted free registration to 6 senior participants (Telfer Professors), 6 students, 3 finalists, 3 speakers and all local students. The organization also provided 5 participants with free accommodation.

In addition to the rich scientific program, we offered a full slate of social events in line with the traditions of the Society. On Sunday evening the get-together took place in the Tabaret Hall, the oldest and most prestigious building of the University of Ottawa. The participants could enjoy some drinks, fine bites and a wonderful piano playing. For the half-day outing, an afternoon cruise was organized along the Ottawa River taking in the sights upon The Ottawa River Queen, refurbished in the style of an early 19th century paddle steamer. During the cruise, a buffet dinner was served in a warm and friendly atmosphere.



**Figure 2: Outing on the Ottawa River**

The conference banquet was held at the historical Chateau Laurier Hotel, in one of its most elegant rooms. A five-course menu was concocted for the occasion by one of the best chefs of the region using finest local products. The Cowguys performing group offered a delightful surprise to the audience with their talented and engaging show. After dinner, next door to the hotel, participants joined the lawn of the Parliament Buildings for the Sound and light show on Parliament Hill. They enjoyed an artistic overview of the history of Canada in a special year where the country is celebrating its 150<sup>th</sup> birthday.



**Figure 3: The Cowguys performing**

During the conference dinner, the Awards of the Society were announced. The awardees were:

- Georg Cantor Award: Kaisa Miettinen, University of Jyväskylä, Finland.
- Edgeworth-Pareto Award: Wojtek Michalowski, Telfer School of Management, University of Ottawa, Canada.
- MCDM Gold Medal: José Rui Figueira, IST, University of Lisbon, Portugal.



**Figure 4: Theo Stewart, José Rui Figueira, Sarah Ben Amor, Murat Köksalan, Wojtek Michalowski and Kaisa Miettinen**

The three awardees delivered their talks during a plenary session on Friday morning. Besides, three finalists of the MCDM doctoral dissertation award competition gave a brief talk and the MCDM Doctoral Dissertation Award was for Britta Schultze, University of Wuppertal, Germany.





**Figure 5: Jyrki Wallenius, Britta Schultze, Sarah Ben Amor, Murat Köksalan and Giovanni Palmisano**

Finally, I would like to remind all members of the Society that the opportunity is given to submit full papers presented at the conference (but not limited to) to the following special issues and special volume:

- **Special Issue on MCDA Practice**, in the Journal of Multi-Criteria Decision Analysis, edited by Johannes Siebert, Jana Krejčí, and Theodor Stewart.
- **Theory and Applications of Fuzzy Systems and Multicriteria Decision Analysis**, in Advances in Fuzzy Systems, edited by Antonella Petrillo, Fabio De Felice, Alessio Ishizaka.
- **Multi-Criteria Decision Making for Sustainable Decisions**, in Annals of Operations Research, edited by Sarah Ben Amor, Anissa Frini and Gilles Reinhardt.
- **Advanced Studies in MCDM** - for the stream of invited “AS” sessions, CRC Press, edited by Sarah Ben Amor, Adiel Teixeira de Almeida, João Miranda, Emel Aktas. The topics covered in the stream are:
  - AS1) Decision Aiding/Making in the World of Today
  - AS2) Collaboration and Interaction of MCDM with Other Sciences
  - AS3) Innovative Decision Aiding For Industries
  - AS4) Decision Support for Services Systems and Companies
  - AS5) Prospects and Future Challenges on MCDA/M
- **Feature Issue on Interactive Multiple Criteria Decision Making**, in European Journal for Decision Processes, edited by Murat Köksalan and Gülşah Karakaya.



- **Special Issue on Multi-objective Combinatorial Optimization**, in International Journal of Information Technology & Decision Making, edited by Murat Köksalan and Banu Lokman.
- **New Methodological and Practical Developments of the PROMETHEE Methods**, in International Journal of Multicriteria Decision Making, edited by Alessio Ishizaka and Salem Chakhar.
- **Outsourcing and Offshoring Decision Making**, in International Journal of Production Research, edited by Alessio Ishizaka, Arijit Bhattacharya, Angappa Gunasekaran, Rob Dekkers.
- **Multi-Criteria Decision Making in Health Care**, in Operations Research for Health Care, edited by Melanie Reuter-Oppermann, Sebastian Rachuba, Andrea Raith.
- **Global Optimization with Multiple Criteria: Theory, Methods and Applications**, in Journal of Global Optimization, edited by Francisco Ruiz, Carlos, Kaisa Miettinen.
- **Theoretical and empirical research, real-world applications, case studies and MCDM software**, in Multiple Criteria Decision Making, edited by Tadeusz Trzaskalik.

The calls for papers and submission deadlines are announced on the conference website: <http://sites.telfer.uottawa.ca/mcdm2017/publications/>.

Organizing such a conference would not have been possible without the help of many people and organizations. As the general chair of the conference, I would like to warmly thank all the people who have made this conference possible: the program committee (chaired by Prof. Francisco Ruiz and by Prof. Gilles Reinhardt locally), the organizers of the invited sessions, the plenary speakers, the chairpersons, and all the presenters and authors of communications. Also, thank you to the different committees that worked hard before and during the conference: the MCDM Society Executive Committee (chaired by Murat Köksalan), the MCDM Awards Committee (chaired by Theo Stewart) and the Doctoral Dissertation Award Committee (chaired by Jyrki Wallenius). I would like to close by expressing my deepest gratitude first to our main sponsors: the International Society on MCDM, the University of Ottawa and the Telfer School of Management; second to my Telfer colleagues, especially Wojtek Michalowski, Gilles Reinhardt and Susan Redmond, and finally to our wonderful students for their tremendous efforts and full support.

*Sarah Ben Amor*

General Chair

## 1.2 Report on the MCDM Awards 2017

The International Society on Multiple Criteria Decision Making makes three awards available for presentation at their international conferences. These are denoted as the **Gold Medal**, the **Edgeworth-Pareto Award** and the **Georg Cantor Award**, defined in the following terms:

**The MCDM Gold Medal:** The highest honor that the International Society on Multiple Criteria Decision Making bestows upon a scholar who, over a distinguished career, has markedly contributed to the theory, methodology, practice and professional development of MCDM.

**The MCDM Edgeworth-Pareto Award:** The highest distinction that the International Society on Multiple Criteria Decision Making bestows upon a researcher or practitioner of MCDM who has demonstrated a high level of creativity in developing novel areas of application of MCDM and associated methodology, markedly influencing the form of MCDM practice.

**The Georg Cantor Award:** The highest form of recognition that the International Society on Multiple Criteria Decision Making bestows upon a researcher who has personified the spirit of independent inquiry in developing innovative ideas in the theory and methodology of MCDM, significantly expanding the tools available to MCDM practice.

The committee tasked with soliciting nominations for the awards and choosing the final awardees for the 2017 conference in Ottawa, Canada, was constituted as follows: Theodor Stewart (Chair), University of Cape Town; Sarah Ben Amor, University of Ottawa; Valerie Belton, University of Strathclyde; Kalyanmoy Deb, Michigan State University; James Dyer, University of Texas; Murat Köksalan, Middle East Technical University; Roman Slowinski, Poznan University; Ralph Steuer, University of Georgia; and Jyrki Wallenius, Aalto University.

The awards were announced at the conference banquet on 13 July 2017, and the awardees delivered stimulating and inspiring award lectures on the following morning at a plenary session of the conference. The winners were:

**Gold Medal:** *JOSÉ RUI FIGUEIRA*, Associate Professor at Universidade de Lisboa and researcher at CEG-IST, Center for Management Studies of Instituto Superior Técnico and associate member at LORIA laboratory, Nancy, France.

**Edgeworth-Pareto Award:** *WOJTEK MICHALOWSKI*, Professor of Health Informatics and Vice-Dean (Research) at the Telfer School of Management, University of Ottawa.

**Georg Cantor Award:** *KAISA MIETTINEN*, Professor in Industrial Optimization at the Faculty of Information Technology, University of Jyväskylä, Finland and Vice-Rector of the University.

At the same time, the society made a further award of the **MCDM Conference Chairmanship Award** to *SARAH BEN AMOR* in recognition of her leadership in the organization of the 2017 conference.

*Theodor J. Stewart,*

Chair of the MCDM Awards Committee 2017

### **1.3 Report about the 2017 MCDM Doctoral Dissertation Competition in Ottawa**

As in Hamburg, our Society organized an MCDM Dissertation Competition in connection with the Ottawa Conference. The competition was advertised, among others, in the MCDM Newsletter.

In total, we received 7 submissions, covering a wide range of theoretical and applied topics in MCDM. Our jury selected three individuals as short-listed, who were invited to the Ottawa Conference to give talks about their dissertations. They were (in alphabetical order):

**Hadi Charkhard:** Theory and Algorithms for Multi-Objective Integer Programming

**Giovanni Palmisano:** European Economic Programming for Rural Sustainable Development

**Britta Schulze:** New Perspectives on Multi-Objective Knapsack Problems

All dissertations were good. Hadi had already some excellent publications on his dissertation, and so did Giovanni. The jury, however, chose Britta Schulze's dissertation as the winner. Her work was judged as "innovative, ambitious, and dealing with an important and difficult problem". Congratulations to Hadi, Giovanni and Britta for excellent work. Special congratulations to Britta – this year's winner.

The following professors served in the jury: **Salvatore Greco**, **Banu Lokman**, **Wojtek Michalowski**, **Serpil Sayin**, and **Jyrki Wallenius** as chair. These individuals chose the short-listed dissertations to be presented in the Ottawa Conference. Since Salvatore and Serpil were unable to attend the Conference, they were replaced by **Ignacy Kaliszewski** in the final jury, although when choosing the final winner we had available also the notes by Salvatore and Serpil. I wish to thank all the jury members for their valuable and time-consuming task in reviewing the dissertations.

*Jyrki Wallenius*

Chair of the Dissertation Competition Jury 2017



#### **1.4 A First Announcement: 25<sup>th</sup> International Conference on Multiple Criteria Decision Making (MCDM 2017) in Istanbul**

Dear friends and colleagues,

On behalf of local organizing committee, I am very pleased and honored to host the 25<sup>th</sup> International Conference on Multiple Criteria Decision Making (MCDM 2019) at Istanbul Technical University, Istanbul, Turkey from June 16<sup>th</sup> to June 21<sup>st</sup> 2019.

The local organizing committee and the chairs are from six different universities in Istanbul. The conference venue will be in the heart of Istanbul and located very near the Bosphorus strait through which the city's heart runs. The campus is easily accessible by public transportation.

Turkey offers some of the world's most important archaeological sites and historical monuments, vast and varied activities, welcoming Turkish hospitality and a delicious and assorted national cuisine. Istanbul, the meeting point of cultures and civilizations and the capital of empires, is the only city in the world straddling both Europe and Asia. With historic streets, architectural masterpieces of old empires, exciting arts scenes, panoramic vistas, and mystical beauties; Istanbul, the Capital of Culture, is truly a city that never sleeps.

In the next newsletter, I'll be back with a more detailed announcement. We will be using the website [www.MCDM2019.org](http://www.MCDM2019.org) for communication.

Finally, as we will celebrate the 25th organization of MCDM conference, we are planning to have some special occasions.

Nevertheless, I kindly invite you already now to the MCDM 2019...

*İstanbul'da görüşmek üzere! (See you in Istanbul!)*

Sincerely,

*Y. İlker Topcu*

Professor, Istanbul Technical University

### 1.5 Announcement of the MCDA/MCDM Summer School 2018

#### **EURO PhD Summer School on MCDA/MCDM**

Chania, Greece

July 23 - August 3, 2018



<http://www.mcda-school18.tuc.gr>

The 2018 EURO PhD Summer School on MCDA/MCDM is going to take place in Chania/Greece, during July 23-August 3, 2018.



The Summer School's audience involves PhD students who are interested in theoretical and applied aspects of MCDA/M and seek to get an in-depth understanding of the field and related topics. The aim of this school is to give to doctoral students a state-of-the-art presentation of multiple criteria methods, applications and software. Moreover, the school seeks to stimulate a network of young researchers in

MCDA/M. The scientific program of the summer school consists of invited lectures and working groups for discussion of case studies.

The host institutions will be the Technical University of Crete and the Mediterranean Agronomic Institute of Chania (MAICh) and the venue will be the Conference Center of MAICh.

The city of Chania lies on the northwest coastline of the island of Crete. Being the largest of Greek islands, Crete has a significant contribution to the Greek economy and it is a major tourism and business center in the east Mediterranean region. Chania is the second largest city in Crete with a population of more than 100,000 inhabitants. Due to its natural beauty and variety of sights, Chania is among the leading tourist destinations not only in Greece but also in the whole Mediterranean area. The International Airport of Chania has direct charter and scheduled flights to many European cities. Multiple daily domestic flights also connect Chania with Athens, which is directly connected to all major international hubs.



The deadline for the submission of applications is January 31st, 2018. The number of participants will be limited to 50. Details about the Summer School and the application process are available at the website of the Summer School: <http://www.mcda-school18.tuc.gr>

We are looking forward to seeing you in Chania.

*Konstantinos Zopounidis*

## 1.6 Society Elections

Four new members to the Executive Committee will be elected this year. Every member of the Society will soon receive an E-mail invitation with a link and detailed instructions for voting at her/his E-mail address listed in the Society database. More information is provided on <http://www.mcdmsociety.org/announcements/elections-2017>. The candidates are listed below:

### 1. Carlos Henggeler Antunes (University of Coimbra and INESC Coimbra, Portugal)



Carlos Henggeler Antunes holds a PhD in Electrical Engineering (Optimization and Systems Theory), from the University of Coimbra in 1992. He is currently a Professor at the Department of Electrical and Computer Engineering, University of Coimbra. He is director of the R&D Institute INESC Coimbra and a member of the coordination committee of the Energy for Sustainability Initiative. His areas of interest are multi-objective optimization, optimization using meta-heuristics, multi-criteria analysis, and energy systems and policies, with particular focus on energy efficiency and demand response. He has participated in several R&D projects and specialized consulting for companies. He is author of more than two hundred papers in journals, book chapters and conference proceedings. He is co-author of the book "Multiobjective Linear and Integer Programming", Springer, 2016 ([please click here for further information](#)).

### 2. Carlos Coello Coello (CINVESTAV-IPN, Mexico)



Dr. Carlos A. Coello Coello received a PhD in Computer Science from Tulane University. He is currently Professor with distinction at the Computer Science Department at CINVESTAV-IPN (in Mexico City, México). He has co-authored more than 430 publications, which currently report over 34,000 citations (his h-index is 74). He is currently in the editorial board of 12 international journals and has received several awards, including Mexico's National Medal of Science in "exact sciences", the IEEE Kiyo Tomiyasu Award and the National Research Award from the Mexican Academy of Science. His main research interests are bio inspired metaheuristics for multi-objective optimization ([please click here for further information](#)).

### 3. José Rui Figueira (Technical University of Lisbon, Portugal)



José Rui Figueira is Associate Professor with Aggregation at IST (ULisboa) and researcher at CEG-IST. He also taught at Universities of Évora and Coimbra, and the Nancy's School of Mines (where he got a Full Professor position in 2010). He is a former member of LAMSADE, INESC-Coimbra, and DIMACS research centers. Professor Figueira is the co-editor of the book, "Multiple Criteria Decision Analysis: State of the Art Surveys, Springer, 2016 (2nd Edition). He currently serves as a coordinator of the European Working Group on Multiple Criteria Decision Aiding. He is Associate Editor of JMCD, the Book Editor Section of the EJOR and belong to the advisory board of other scientific international journals ([please click here for further information](#)).



#### 4. Salvatore Greco (University of Catania, Italy)



Salvatore Greco has been full professor at Department of Economics and Business of University of Catania since 2001. Since 2013, he has been also affiliated to the Business School of Portsmouth University. He is the vice-president of the Italian Association for Mathematics applied to Social and Economics Sciences. He is one of the three coordinators of the EURO Working Group in Multiple Criteria Decision Aiding. His research is mainly focused on Multiple Criteria Decision Aiding and Rough Set Theory. In 2013 he received the Gold Medal of International Society on Multiple Criteria Decision Making ([please click here for further information](#)).

#### 5. Dylan F. Jones (University of Portsmouth, UK)



Dr. Dylan Jones is a Professor of Operational Research based in the Department of Mathematics at the University of Portsmouth, UK. He is the Director of the University's cross-disciplinary Centre of Operational Research and Logistics (CORL). Prof Jones's main area of expertise is the theory and application of decision problems with multiple conflicting objectives. He has published over 50 scientific articles and a keynote book on this topic. Prof Jones has worked on the application of multiple criteria methods in various fields of application including healthcare, logistics, sustainability and renewable energy. He has spent a significant portion of the past five years working on three European Union funded grants applying Operational Research methods to the marine renewable energy sector ([please click here for further information](#)).

#### 6. Kathrin Klamroth (Bergische Universität Wuppertal, Germany)



Kathrin Klamroth graduated with a PhD in Mathematics at Braunschweig University, and she attained her Habilitation at Kaiserslautern University, Germany. Before moving to the University of Wuppertal in 2008, she has been appointed at the University of Erlangen-Nuremberg (2002-2008). She has held visiting positions at Clemson University (USA), the University of Copenhagen (Denmark) and Paris Dauphine University (France). Kathrin has been an executive committee member from 2006-2010 and since 2013. She was a member of the MCDM dissertation award committee 2011 and 2013. She has co-organized the MCDM track at several EURO meetings and she was/is co-organizer of a Dagstuhl seminar on MCDM and EMO in 2015 and 2018 ([please click here for further information](#)).

#### 7. Judith Lienert (EAWAG Aquatic Research, Switzerland)



Dr. Judit Lienert leads the cluster Decision Analysis at Eawag: Swiss Federal Institute of Aquatic Science and Technology. After a first career in nursing, she received her PhD in ecology from the University Zürich in 2001. At Eawag, she started as co-project leader of a large transdisciplinary wastewater engineering project, which sparked her interest in interdisciplinary, real-world decision problems. Since 2007, her research focuses on integrating natural, engineering, and social science aspects in MCDA, and dealing with uncertainty. A specific interest is on behavioural OR, and a scientifically rigorous, but practicable integration of stakeholder and public preferences in environmental decisions ([please click here for further information](#)).

## 8. Stefan Ruzika (TU Kaiserslautern, Germany)



Dr. Stefan Ruzika is Full Professor for Economathematics and School Mathematics in the Department of Mathematics at the University of Kaiserslautern, Germany. He has worked intensively on mathematical modeling, multiple objective combinatorial optimization and network optimization. His fundamental research is often motivated by applications such as evacuation and urban event planning, digital communications or transportation. Besides, Prof. Ruzika has worked actively in matters related to school mathematics such as mathematical modeling activities with high-school students, the transition phase from high-school to university, or advanced teacher trainings ([please click here for further information](#)).

## 9. Hsu-Shih Shih (Tamkang University, Taiwan)



Hsu-Shih Shih is Professor at Department of Management Sciences, Tamkang University, Taiwan, R.O.C. He obtained his Ph.D. degree at Industrial Engineering Department of Kansas State University, Manhattan, Kansas, U.S.A. His areas of specialization include decision analysis and support, operations research, soft computing, and environmental management. His publications appear in European Journal of Operational Research, Computers and Operations Research, Journal of Operational Research Society, Group Decision and Negotiation, Fuzzy Sets and Systems, etc. and a book by Springer. He also has been a council member, secretary, and president (2016-17) of Operations Research Society of Taiwan ([please click here for further information](#)).

## 2 Obituaries

### 2.1 *Abe Feinberg in memoriam*

*By Jim Dyer*

Abraham Feinberg passed away on January 20, 2017. Abe will be remembered by most members of the MCDM Society for the well-known paper “An Interactive Approach for Multi-Criterion Optimization with an Application to the Operation of an Academic Department” co-authored with Arthur Geoffrion and Jim Dyer and published in *Management Science* in December 1972. He made a significant contribution to the paper, particularly to the implementation of the optimization model and in assessing tradeoffs from the departmental administrator.



Abe Feinberg received his B.S. in electrical engineering and his M.S. in industrial management from MIT, and his PhD in Business Administration from UCLA in 1972. His dissertation explored the separability of multi-attribute utility functions for the case of certainty, and inspired further research on cardinal multi-attribute utility functions by others. He elected to stay in the Los Angeles area and accepted a job at California State University, Northridge, where he served as Chair of the Department of Management Science and in other key administrative roles.

Abe stayed active in the area of multiple criteria decision making, and published papers in other scholarly journals and a number of technical reports on MCDM applications as a consultant for the Jet Propulsion Laboratory. The latter included the evaluation of small solar thermal electric power plants and the ranking of six different advanced technology alternatives. He became a member of the International Society on MCDM in 1987.

Abe Feinberg was a good scholar, a creative educator, and a better friend. Art Geoffrion made the following observation, “What I remember most about Abe is his general demeanor. He was one of the kindest, gentlest people I ever knew.”



## 2.2 *Eric Jaquet-Lagrange in memoriam*

*By Yannis Siskos*

On May 7, 2017, Eric Jaquet-Lagrange, a leading French pioneer in the field of preference analysis, multiple criteria decision aiding (MCDA), and OR based decision support systems, passed away.



Eric Jaquet-Lagrange, was born in Fécamp (France) in 1947. Engineer graduated from Ecole Centrale de Paris, he got his PhD diploma in 1977 and Doctorat d'Etat in 1981 in operational research and management science in France. During years 1972-1976, Eric worked as a research engineer in SEMA society, while in years 1976-1987, he worked as an assistant professor at the University of Paris-Dauphine and a researcher at the LAMSADE laboratory founded by Professor Bernard Roy in 1975. In 1977, he met Yannis Siskos to whom he passed the idea of disaggregation in MCDA via ordinal regression approach. One year later, in May 1978, Eric and Yannis published their seminal paper on the UTA method, firstly in Cahiers du LAMSADE series, and later, in 1982, in the European Journal of Operational Research (EJOR). The last revision of this paper was made in the Eric's car during the authors' trip from Hamburg to Paris after the presentation of the UTA software during the IFORS'81 Conference. The disaggregation approach proposes to infer formal decision models from global preference structures. In particular, the UTA method aims at inferring one or more additive value functions. Together with UTA, they developed some theory and heuristics of stability/robustness analysis to handle the difficult problem of multiple and near optimal solutions in linear programming, initiating the robust ordinal regression theory. According to the report of the editor-in-chief, the UTA paper is among the 30 most cited papers in the history of EJOR. Later, a big number of MCDA methods were developed by other scientists on the basis of UTA, such as UTADIS, UTAGMS, GRIP, ACUTA, and RUTA. In 2001, Eric and Yannis published a second paper in EJOR to celebrate the twenty years of MCDA experience with disaggregation methods.

Eric refused to compromise with the university status of France, which was unfair to the science of operational research. Thus, he decided in 1987 to abandon the academic life in order to create with Denis Montaut the society EURODECISION, which immediately gained a high position on the resource optimization market. Its first clients were companies such as Air France, RATP (Paris public transport agency), and Renault. EURODECISION quickly acquired a solid reputation in applications of operational research methods to solving particularly complex real-world decision problems.

In January 2012, Eric founded the Tensing Editions that publishes novels, biographies, poetry in printed and e-book versions. Eric passed his childhood in the city of Fécamp on the Normandy coast at one time when the trawlers still left for the fishing season to Newfoundland. These landscapes and his love of the veil and long journeys at sea provided most of the inspiration of his last writings. His vast experiment of the mountaineering and his travel to India and the Himalayas are also reflected in his collection of news, Namasté, and in his novel, the cedars of Kanchenjunga.

Eric was a visionary scientist and entrepreneur. With his beloved spouse Christine they raised four children, two daughters Manon and Adèle and two sons Thibaut and Matthias.

Bon voyage Eric, Καλό ταξίδι.

*Yannis Siskos*

### 2.3 *Ândrzej Lewandowski in memoriam*

*By Marek Makowski*

Ândrzej (Lew) Lewandowski passed away on November 23rd, 2016. As a student Andrzej was called Lew; his commonly known and used for 50+ years nickname was derived from his family name and it is well one side of Andrzej's personality (in Polish "lew" means lion). On the "lion-side", Andrzej was indeed strong in pushing forward frontiers of science and engineering (as well as common sense and basic knowledge in everyday life), forcing his usually strong opinions, and worked hard but efficient. However, on the other side, Lew knew, loved and enjoyed the timeless elements of the bright-side of life, in particular interesting people, landscape, architecture, classical music, paintings, literature, as well as good food and drinks. Needless to say, Andrzej never had any interest in using any kind of power other than his brain. The MCDM community remembers Andrzej mainly from his activities in 1980s, when he worked at the International Institute for Applied Systems Analysis (IIASA) and organized numerous collaborative projects, conferences, and publications focused on model-based decision support in which interactive multicriteria analysis played a key role. Probably very few know the milestones of Andrzej's diversified professional life-path:



- MSc (1970) and PhD (1974) in Electrical and Control Engineering, both from the Warsaw University of Technology (WUT), Warsaw, Poland.
- Assistant professor at the Institute of Automatic Control of the WUT, 1974-1985.
- Project leader, Methodology of Decision Analysis Project, IIASA, Laxenburg, Austria, 1985-1989.
- Visiting professor, Department of Computer and Information Systems, Temple University, Philadelphia, USA, 1989-1990.
- Visiting professor and research professor, Department of Electrical and Computer Engineering, Wayne State University, Detroit, USA, 1990-1994.
- Operations research specialist, National Oceanic and Atmospheric Administration (NOAA), Seattle, USA, 1994-1995.
- Software engineer, American Management Systems, Birmingham, USA, 1995-1996.
- Senior software engineer, Computer Command and Control Systems, Philadelphia, USA, 1996-1997.
- Principal optimization software architect, Red Prairie Corporation, Waukesha, USA, 1997-2013.
- Associate professor, Milwaukee School of Engineering, Milwaukee, USA, 2013-2015.

The above milestones show the rich scope of Andrzej's professional activities. Moreover, many of his tangible achievements are published (note that he was not allowed to publish before 2016 on his 1995-2013 activities in the industry; thus many of his pioneering achievements will probably remain unknown to scientific community). However, the life-path and publications characterize only the tangible subspace of Lew's legacy. Let's therefore augment it by commenting on the tacit dimensions that are well known by those who were fortunate to know Andrzej for a longer time. Andrzej was always eager to explore new ideas and paradigms, develop solutions for solving challenging real-life problems, as well as to interact with colleagues, students, and problem-owners. Already as a student in 1960s Andrzej built reputation of reliable colleague who develops

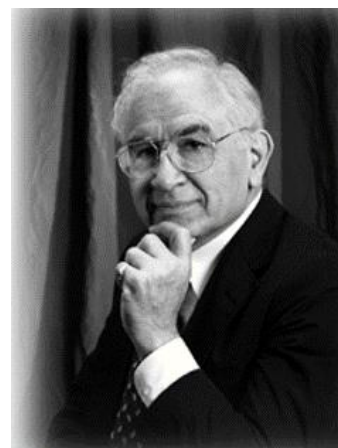
and exploits solid knowledge for rational problem solving, be it for moving forward towards the university degree or for helping to fix something broken. Lew expanded the "engineering approach" (aka problem-solving focused paradigm) and made it successful in his research, teaching, as well as in numerous challenging applications in diverse areas. Over decades Andrzej developed profound knowledge and skills in many fields of science and technology, especially mathematical modeling, statistics and data analysis, numerical methods, optimization, simulation, decision support, and software engineering, as well as in transportation, energy, and environment. Therefore, Lew was a perfect source of recommendations for things to read, explore, and apply (or avoid), as well as to see, feel, immerse and enjoy. Interactions with Lew were always inspirational and enjoyable, whether in an office, on seminars, at a keyboard, during trips, dinners, heuristics, or even just coffee breaks or a quick drop to Peter's ice-cream.

Andrzej was a great person, dear friend, respected colleague, inspirational leader and teacher; his work had, and continues to have, big and diversified impacts on many researchers, engineers, and former students. All who knew Lew will keep him in hearts and minds, and thus reinforce the belief gently calming the emptiness left by inevitable moves to the better world: does not die he, who lives in the memories.

## 2.4 Thomas Saaty in memoriam

*By Luis Vargas*

Tom Saaty was born in Mosul, Iraq, on July 18, 1926. His parents were descendants from Assyrian Christians from northern Iraq. His father, David Saaty, lived in Rhode Island for many years, but returned to his home town of Mosul in the early 1900s. David was a well-known entrepreneur whose ambition was to modernize Iraq; he opened the country's first ice-making factory in 1923. David married Tom's mother, Dola, in 1925. Tom was their first child. They had three other children— John, Ben, and Grace.



Tom went to Brummana High School in Lebanon, a Quaker school, when he was 15, and after graduation attended the American University of Beirut for two years. When he was 19 he went to the U.S. to attend Columbia Union College in Takoma Park, Maryland. He then attended the Catholic University of America, receiving a M.S. degree in Physics. He received a Ph.D. in Mathematics from Yale University in 1953 under Professor Einer Hille, and he did postgraduate work for a year at La Sorbonne, Paris, under the direction of Henri Cartan.

After graduating from Yale, and, despite efforts by Einer Hille who wanted Tom to stay at Yale to do research, he joined Melpar, Inc. (1953-54) ) as a scientific analyst studying submarine defense. In 1954, he joined the Operations Evaluation Group (OEG) in Washington D.C. OEG was formed in 1945 from the World War II Operations Research Group that evolved from the Antisubmarine Warfare Operations Research Group organized by Philip Morse in 1942. At OEG, Tom worked on classified submarine detection problems and the mathematics of radar reconnaissance, a topic of interest due to U.S. aircraft flights (RB48 and U-2) over the Soviet Union. In 1958, he was appointed scientific liaison officer to the U.S. Embassy in London. In 1959, he was named Director of Advanced Planning in the Office of Naval Research (ONR), a post he held until 1961 when he was appointed as Scientific Analyst in the Arms Control and Disarmament Agency (ACDA), Department of State, where he stayed from 1963 till 1969. In 1969, Tom left ACDA and started his academic career as a professor at the University of Pennsylvania, and in 1979, moved to the University of Pittsburgh where he held a Distinguished University Professor Chair, with appointments to the Philosophy of Science department; the department of Operations, Decision Sciences and Artificial Intelligence at the Joseph M. Katz Graduate School of Business; the School of Engineering; the department of Mathematics; and the department of Sociology.

Tom has made many contributions in a variety of fields from queueing theory to mathematical models of arms control, but he is best known for his Analytic Hierarchy/Network Process theory.

Creativity in just about all fields, especially mathematics, has been a continuing area of Tom's research. His book *Creative Thinking, Problem Solving and Decision Making* ties together his main pursuits and interests in this area.

Tom was elected a fellow of the American Association for the Advancement of Science (AAAS) in 1959 and, in 1970, to the Real Academia de Ciencias Exactas, Fisicas y Naturales (Royal Academy of Mathematical, Physical and Natural Sciences) of Spain. In 1998, he was elected member of the International Academy of Management. In 2000, he received the Gold Medal of The International Society on Multiple Criteria Decision Making. In 2005, he was elected a member of the National Academy of Engineering. In 2007, he was awarded the International Quality Function Deployment



Akao Prize from Japan, and in 2008, he was awarded INFORMS Impact Prize for the development of the Analytic Hierarchy Process theory.

Tom loved music and humor. He possessed CDs and records of all of Beethoven's works and, at one point in his life, could identify any Beethoven's piece. In a different vein, when he was younger, it was clear to him he was not good at telling jokes. As a way of his studying how to be a raconteur of jokes, he had, over the years, compiled hundreds of jokes into many booklets under a wide variety of pseudonyms. He shared and recounted this collection with colleagues and friends, and with his classes.

On a personal note. I worked with Tom for over 40 years but I consider him more a father than a coworker, for I knew him longer and spent more time with him than my own father. I met Tom in the Fall of 1975 when I came to study under him from Spain. From the beginning, I was considered part of his family. After 40 years spent with him I cannot find words to express the sadness I feel, but I am happy to think that perhaps now he has found the answers he was looking for to the innumerable questions he had about physics, mathematics, science and life in general.

### 3 Upcoming Events, Call for Papers, and other News

#### 3.1 *Journal of Multi-Criteria Decision Analysis*

##### **Special Issue on MCDA Practice**

Guest Editors: Johannes Siebert, Jana Krejčí, and Theodor Stewart

In recognition of the importance of the biennial international conference of the International Society on MCDM, the journal is planning a special issue on MCDA practice. The journal has in previous years encouraged submission of practice-oriented papers at the conference, and the editors wish to continue this tradition in encouraging greater attention to the practice of MCDA.

The special issue is open to all contributions proposing both new MCDA methods and advances in existing MCDA methods with a specific focus on applications in practice. The primary criterion in considering papers will be the extent to which the material describes a real application of MCDA in the sense of involving real decision makers or other stakeholders or role-players. The impact of the analysis on clients' decision making, the benefits to the client organization, and the importance of the problem will all be taken into account. Contributions dealing with issues such as imprecision, risk and uncertainty in MCDA would be particularly welcome. Secondary criteria will relate to enhancements to the broader field of MCDA, for example novelty of the methodology or application, and the quality of the MCDA method used.

Reworking of case studies from other authors will not be encouraged. Naturally, papers will still be subject to our usual reviewing procedure to ensure a high quality of the contributions.

Papers should be uploaded online at <http://mc.manuscriptcentral.com/mcda>, and should clearly indicate submission to the special issue in the box provided.

DEADLINE FOR SUBMISSION: 30 September 2017

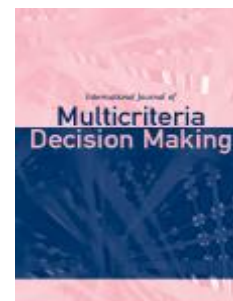


### 3.2 *International Journal of Multicriteria Decision Making*

#### **Special Issue on New Methodological and Practical Developments of the PROMETHEE Methods**

Guest Editors: Alessio Ishizaka and Salem Chakhar,

PROMETHEE is one of the most popular multi-criteria decision aiding methods. Today, hundreds of applications have been published, several software packages are available, and new methodological developments (including group decision support, preference elicitation, sorting, visual management, etc.) have been proposed.



The issue will carry revised and substantially extended versions of selected papers presented at [PROMETHEE Days 2017](#), but we also strongly encourage researchers unable to participate in the conference to submit articles for this call.

#### **Subject Coverage**

Suitable topics include, but are not limited to, the following:

- Theoretical advances in the PROMETHEE and GAIA methods
- Axiomatization
- Extensions for sorting and clustering
- Group decision support
- Rank reversal
- Preference elicitation
- PROMETHEE applications
- PROMETHEE software packages
- Industrial case studies

Manuscripts due by: 30 September, 2017

Notification to authors: 31 December, 2017

Final versions due by: 31 March, 2018

More information at:

<http://www.inderscience.com/info/ingeneral/cfplist.php?jcode=ijmcdm>

### 3.3 *International Journal of Production Research*

#### **Special Issue on Outsourcing and Offshoring Decision Making**

Guest Editors: Alessio Ishizaka, Arijit Bhattacharya, Angappa Gunasekaran and Rob Dekkers

#### **How can you contribute?**

This special issue will generate a new body of knowledge to assist enterprises by compiling cutting-edge research on the decision-making tools and techniques used for outsourcing and offshoring.

We welcome novel, high-quality articles presenting original research outcomes that answer the following five questions posed by Hätönen and Eriksson (2009) and Pereira and Malik (2015):

1: *Why* do we need to use outsourcing and offshoring?

Advantages and disadvantages have been widely reported (e.g. Dolgui & Proth, 2013; Weidenbaum, 2000). However, relatively recent publications also point to back-sourcing (for example, Kinkel and Maloca, 2009) and reshoring. This calls for both more appropriate approaches to decision making and building theory that informs decisions.

2: *What* to outsource: what to keep in-house and what to outsource?

Examples of decisions could include: What ‘core’ segments of the value chain are to be retained in-house? What could be optimally dispersed geographically, to allies and contractors? What is the influence in terms of advances in technology on the firm’s decision to outsource? What are the factors that influence a firm’s decision to re-shore and back-source? What are the various influences of outsourcing decisions on the local host economies and the competitiveness of its local firms?)

3: *Where* to outsource?

Which location(s)? Which supplier to select? What are the factors that influence the offshore-location decision when ownership of the activity is transferred to the foreign vendor?

4: *How* is outsourcing undertaken?

Examples could include: How does outsourcing/offshoring affect the firm’s behaviour, structure and organisation within the integrating global economy?; How does and can the relation between location, motivation and the firm’s business strategies be best captured methodologically to produce a holistic picture of outsourcing and offshoring decisions? How do new locations and the changing landscape therein transform the firm’s strategies of outsourcing and its competitive advantages? How does the formation of GVCs get influenced by the host government policies and the local institutional attributes?).

5: *When* to outsource or keep in-house?

Examples could include: How do companies decide when to make, and when to outsource? When should a firm continue to produce in-house? When does it start buying from a new supplier? And when does it continue to maintain an on-going relationship with a particular supplier? When it comes to choices, are factors influencing the outsourcing decisions firm or context specific in terms of what and where it is being outsourced? When it comes to timing are firms primary strategic objective to minimize risk and maximize value? In terms of ‘when’ do firms take into consideration





increasing or decreasing levels of core competencies, competitive advantages, temporal or permanency, efficiency or inefficiency etc.?)

The methodologies used may have, but are not limited to, the following features:

- New mathematical models, optimisation models, simulations, case studies, empirical studies, exploratory studies, questionnaire-based surveys
- Novel applications of decision making tools/operational research techniques in the specified area.

Any work you submit should have not been published elsewhere.

**DEADLINE FOR SUBMISSION:** 31 December 2017

More information at:

[http://explore.tandfonline.com/page/est/ijpr-outsourcing-and-offshoring-decision-making?utm\\_source=TFO&utm\\_medium=cms&utm\\_campaign=JME01051](http://explore.tandfonline.com/page/est/ijpr-outsourcing-and-offshoring-decision-making?utm_source=TFO&utm_medium=cms&utm_campaign=JME01051)

### 3.4 *Annals of Operations Research*

#### **Special Issue on Multi-criteria Decision Making for Sustainable Decisions**

Guest Editors: Sarah Ben Amor, Anissa Frini, and Gilles Reinhardt

The Annals of Operations Research seeks submissions from researchers with expertise on new developments in multi-criteria decision making, multi-objective optimization, multi-criteria optimization, goal programming, and applications to sustainability. This special issue is targeted at, but not restricted to, the 24th International Conference on Multiple Criteria Decision Making held July 10-14, 2017, in Ottawa, Canada. The general theme for this year was “Canada 150: Creating a Sustainable Society.”



The main topics of interest for this special issue are:

- Advances in multi-criteria decision making
- Integrated MCDM applications
- MCDM / MOO software development
- Multi-objective optimization
- Evolutionary multi-objective
- Goal programming
- Stochastic multi-criteria optimization
- Data Envelopment Analysis
- Interactive methods in MCDM
- Stakeholder's influence in the MCDM
- Application to sustainable management, environmental management, finance, economics, management science, healthcare, and supply chain management

All papers submitted to the special issue will be peer reviewed in accordance with the standard procedures of the Annals of Operations Research (ANOR) journal.

Contributions arising from papers given at the conference should be substantially extended, and should cite the conference paper where appropriate.

Submission Deadline: January 31, 2018

More information at: <http://rutcor.rutgers.edu/CfP%20MCDM%202017.pdf>

### 3.5 *European Journal for Decision Processes*

#### **Feature Issue on Interactive Multiple Criteria Decision Making**

Guest Editors: Murat Köksalan, Gülşah Karakaya

##### **Motivation**

Innovative interactive multiple criteria decision making (MCDM) approaches started to appear in early 1970s. Early approaches typically tried to converge to preferred solutions by restricting the solution space or the weight space, or by providing tools to search the desired parts of the solution space. There has been a wide interest in interactive approaches since then and an extensive literature has been developed. Interactive approaches have important impacts on the decisions as they include the decision makers throughout the process. Being involved throughout the process enhances the decision maker's learning about his/her preferences as well as the extent of the available solutions. This not only provides insights and leads to more informed decisions, but also increases the decision maker's confidence in the decisions he/she makes.



There have been many applications as well as developments of exact and heuristic interactive MCDM approaches. Visualizations have been increasingly employed in interactive approaches in order to capture the decision-maker preferences better. Despite the extensive developments in interactive MCDM approaches, there is room for new methodological studies and practical applications. Especially studies that aim to aid the decision makers in articulating their preferences utilizing the advances in information technology and visualization techniques may increase the use of interactive methods in practical problems.

##### **Contents**

This Feature Issue aims to publish a collection of original papers on interactive MCDM. Methodological developments and practical applications involving interactive MCDM with heuristics or exact approaches are welcome. High quality manuscripts developing new theory, algorithms, empirical studies, and real life applications in the context of interactive MCDM that highlight the process of decision making are especially encouraged to be submitted.

Although this Feature Issue is planned on the occasion of the 24th International Conference on MCDM, it is not limited to the research that has been presented at the conference.

##### **Schedule**

Prospective authors are invited to submit full papers via the EJDP electronic submission system (<https://www.editorialmanager.com/ejdp>) selecting article type SI: Interactive Multiple Criteria Decision Making. The planned timeline is as follows:

Paper Submission Due: November 1, 2017  
 Review Results of Round 1: March 1, 2018  
 Revised Manuscript Due (if applicable): April 1, 2018  
 Final Decision: July 1, 2018  
 Publication of the Feature Issue: October 2018

More information at: <http://sites.telfer.uottawa.ca/mcdm2017/files/2016/05/CfP-Interactive-MCDM.pdf>

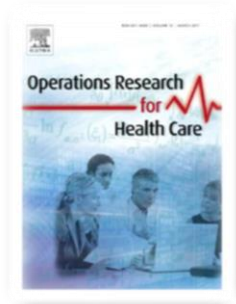
### 3.6 Operations Research for Health Care

#### Multi-Criteria Decision Making in Health Care

Guest Editors: Melanie Reuter-Oppermann, Sebastian Rachuba, AND Andrea Raith

##### Context:

The development and use of new models and concepts to support decision making in health care has constantly increased over the last decades and a variety of techniques has been applied including optimization, simulation paradigms, and hybrid approaches. In general, quantitative decision support in health care very often needs to consider different criteria to evaluate whether a solution (e.g. a schedule or a network of locations) is good or optimal. In the assessment of solution quality, sometimes different stakeholder's views also need to be captured.



It has been stated in the literature that decision making in health care is, in fact, a multi-criteria decision problem. However, only a few studies do explicitly reflect on this or even critically discuss why a problem is of multi-criteria nature and how it should best be approached. Also, as health care problems address real world issues, the usefulness of such multi-criteria approaches for practitioners and the way solutions are presented and used is of crucial, yet often neglected, importance.

Hence, this special issue aims to collect articles which explicitly address the mentioned issues around multi-criteria decision making in health care. We invite discussions on how multiple criteria are selected, how they are modelled and which approaches can be used to solve the problems. Submissions should also provide insights from the collaborating health practitioners' perspective, e.g. did the model meet their requirements, and what were necessary simplifications, reductions, or extensions to the set of criteria that was used. Contributions should use dedicated multi-criteria approaches or discuss trade-offs between performance metrics. Finally, we encourage authors to discuss how their solutions have been presented to and used by decision makers.

This special issue "Multi-Criteria Decision Making in Health Care" aims to publish recent advances in the development and use of models and approaches in health care where multiple criteria are explicitly taken into account. We would like to invite both researchers and practitioners who develop and use operations research in health care to submit their work to be published in this special issue.

Possible application areas include, but are not limited to:

- Location problems in health care
- Operating room planning and scheduling
- Physician and staff scheduling or rostering
- Appointment planning
- Emergency department modelling
- Home care and long-term care
- Emergency medical service systems
- Health care logistics
- Radiation therapy
- Screening and prevention



We welcome the submission of case studies, in particular when lessons learned from using multi-criteria decision analysis are shared. We invite researchers to submit their work to this special issue as an opportunity for publishing in a high quality journal. Submitted papers should fulfil the scope of Operations Research for Health Care (ORHC) as stated on the journal's homepage (a guide for authors is available here).

**Submissions:**

Please submit your full papers for ORHC through <http://ees.elsevier.com/orhc/>

Select the article type option for special issue from the drop-down menu “Special Issue: MCDM in Health Care”.

Submission Start Date: 1st July 2017

Last Date for Submission: 31st October 2017

Closure of peer review process: 30th September 2018

Expected publication: January 2019

More information at: <https://www.journals.elsevier.com/operations-research-for-health-care/call-for-papers/multi-criteria-decision-making-in-health-care>

### 3.7 International Journal of Information Technology & Decision Making

#### Special Issue on Multi-objective Combinatorial Optimization

Guest Editors: Murat Köksalan and Banu Lokman

#### Aim and Scope

Optimization problems arise naturally in almost all branches of organizations such as production, logistics, communication, telecommunication, energy, and transportation systems. In today's complex systems, the decision makers (DMs) usually have to deal with multiple criteria that are conflicting with each other. Hence, multi-objective integer programs (MOIPs) have many applications in a variety of areas. Multi-objective combinatorial optimization problems are MOIPs that have special structures. Although there are recent approaches that generate all nondominated points or a set of points that approximates the nondominated set, there is still a room for improvement considering practical applications.



This call for papers is for a special issue of International Journal of Information Technology and Decision Making dedicated to high quality papers on multi-objective integer programs and multi-objective combinatorial optimization problems. The special issue is open to all contributions developing new theory, algorithms and applications. Exact methods, approximation methods, heuristics and metaheuristics and interactive methods are all welcome. The papers that are presented at the 24th International Conference on MCDM are especially encouraged to be submitted but the special issue is not limited to those that have been presented at the conference.

#### Submission

Authors are invited to submit their manuscripts online at Editorial Manager, of International Journal of Information Technology & Decision Making (IJITDM):

<http://www.editorialmanager.com/ijitdm/>.

When submitting the manuscript, "Special Issue Paper" should be selected as article type, and "Special Issue on Multi-objective Combinatorial Optimization problems" should be selected as Section/Category.

#### Important Dates

Paper Submission Due: November 15, 2017

Review Results of Round 1: April 15, 2018

Revised Manuscript Due (if applicable): July 15, 2018

Review Results of Round 2 (if applicable): September 15, 2018

Revised Manuscript Due (if applicable): December 15, 2018

Final Decision: February 15, 2019

Publication: May 15, 2019

#### Guest Editors

Murat Köksalan ([koksalan@metu.edu.tr](mailto:koksalan@metu.edu.tr)), Middle East Technical University, Ankara, Turkey

Banu Lokman ([lbanu@metu.edu.tr](mailto:lbanu@metu.edu.tr)), Middle East Technical University, Ankara, Turkey

### 3.8 Group Decision and Negotiation Conference (GDN 2018)



Nanjing, China, June 9-13, 2018

<http://gdn2018.nuaa.edu.cn>

GDN  | 2018

The 18th Group Decision and Negotiation Conference will take place in Nanjing, China at the Lake Home Convention and Exhibition Center (Hotel One Nanjing). GDN 2018 will be hosted by the Nanjing University of Aeronautics and Astronautics. This conference of the INFORMS GDN section provides a forum for researchers from Africa, the Americas, Asia, Europe, and Oceania. The Conference is the premier venue for academics, practitioners, teachers, and consultants involved in every aspect of group decision and negotiation involving human as well as artificial agents.

Five keynote presentations will be delivered by world-class experts and a variety of presentations and panels will feature internationally renowned researchers. The conference will also support junior researchers by offering a dedicated student track and a doctoral consortium.

Selected papers will be published in the Special Issues of the *Group Decision and Negotiation* Journal, affiliated with INFORMS, and the *Journal of Systems Science and Systems Engineering*, both published by Springer. The submitted papers will be considered for *GDN Springer Best Paper Awards* (\$600 and \$400) and *GDN Springer Young Researcher Awards* (\$400 and \$250).

More information about doctoral consortium, paper submission, awards, focused streams, workshops and sessions as well as deadlines and fees is available on the GDN 2018 website (<http://gdn2018.nuaa.edu.cn>).

#### Important dates:

1. Deadline for submitting Session Proposals: November 1, 2017
2. Deadline for the submission to the Springer Proceedings: November 15, 2017
3. Deadline for the submission to the Local Proceedings: January 30, 2018

We cordially invite you to join GDN 2018 Conference in Nanjing. Nanjing is a city situated in the heartland of the lower Yangtze River region of China. It is the capital city of Jiangsu province of People's Republic of China and the second largest city in the east China region. With a population of around 8,300,000, the city spreads across hills, valleys, and parks. Nanjing has a prominent place in Chinese history and culture, having served as the capital of various Chinese dynasties, kingdoms and republican governments dating from the 3rd century to 1949.

Honorary Chair: Marc Kilgour

General Chairs: Gregory Kersten and Hong Nie

Program Chairs: Ye Chen, Rudolf Vetschera and Haiyan Xu



### 3.9 *The 7th International Conference on Multidimensional Finance, Insurance and Investment (ICMFII'18)*



May 10-12, 2018 ↻ Chania (Crete, Greece)

#### CALL FOR PAPERS

The International Conference on Multidimensional Finance, Insurance and Investment is devoted to the recent developments and applications of the Multi-Criteria Decision Aid tools in the field of finance and insurance. This scientific event disseminates recent methods and procedures designed to solve problems related to **finance**, **insurance** and **investments** formulated through **analytical operational research models** in a multidimensional framework that takes into consideration multiple conflicting and incommensurable decision objectives. The aim of this conference is to bring together **researchers** and **practitioners** from all over the world to discuss recent theoretical and methodological developments as well as new empirical results. Given the popularity of financial portfolio optimization within the fields of finance and operational research, and the large number of active researchers, the idea of organizing an international workshop on multi-attribute portfolio selection (MAPS) was initiated in **Helsinki** in 2005 and chaired by Pekka Korhonen. The second edition of this scientific event took place in **Montreal** and was organized by Belaid Aouni in 2007. The third edition was organized by Alejandro Balbas in **Madrid** in 2009. The international committee has decided to replace the MAPS workshops by an International Conference on Multidimensional Finance, Insurance and Investment (ICMFII). The 2011 edition of the ICMFII held on April 14-16, in **Hammamet** (Tunisia) and chaired by Fouad Ben Abdelaziz. The fifth edition of the ICMFII was organized on November 25-27, 2013 in **Bahrain** and chaired by Minwir Al-Shammari. The sixth edition of this conference took place on June 26-29, in **Alcoy** (Spain). The 7<sup>th</sup> edition will be organized by the Technical University of Crete (Financial Engineering Laboratory, conference chairs: Michael Doumpos and Constantin Zopounidis) on May 10-12, 2018 in Chania, Greece.

A broad range of topics will be covered during the conference. Papers related to the following topics are suitable for submission to the conference:

- Multi-Attribute portfolio selection
- Multiple Objective Programming in Finance
- Stochastic Programming in Finance
- Option pricing
- Asset and liability management
- Interest rate models
- Capital Budgeting
- Corporate Governance
- Auditing, Accounting, Insurance, and Pension Fund Management
- Multi-Criteria Decision Aid in Finance
- Fuzziness and uncertainty in Finance
- Financial Planning and Financial Engineering
- Portfolio Analysis
- Financial Economics
- Bank Management
- Finance applications
- Insurance applications
- All other topics in relation to Financial Decision Sciences



Plenary talks have been arranged by **Prof. Panos Pardalos** (University of Florida, USA) and **Prof. Salvatore Greco** (University of Catania, Italy and University of Portsmouth, UK).

The ICMFII International committee invites all interested researchers and professionals to submit **extended abstracts** (at most 2 pages) should be written in English. They should clearly include: title, brief abstract, list of key-words, author(s) full name(s), affiliation(s), complete address(es), and e-mail address(es). Please state the name of the contact person. All documents must be sent in RTF (Rich Text File) or Doc format by email to the following address [icmfii18@isc.tuc.gr](mailto:icmfii18@isc.tuc.gr). The **deadline for submitting your Abstract is February 15, 2018**.

Selected manuscripts will be considered as potential full-paper publications in special issues arranged for **The Journal of Global Optimization** and the **International Journal of Financial Engineering & Risk Management**.

Early registration fee for academic participants is €250 and for students is €150. The organizing committee will be glad to assist all registered participants who have paid the registration fee in the Visa process.

For any question concerning the organization of the Conference, you may contact the conference organizers at [icmfii18@isc.tuc.gr](mailto:icmfii18@isc.tuc.gr). For further information, please visit the ICMFII website [www.icmfii.com](http://www.icmfii.com)

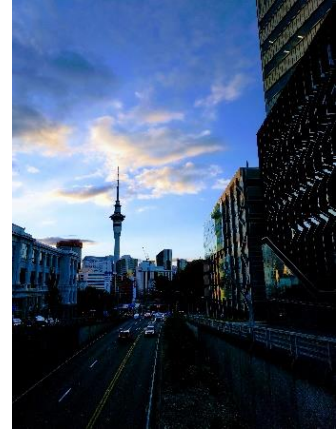


This conference is endorsed by the International Society on Multiple Criteria Decision Making

## 4 Job Market

### *PhD scholarship at the Department of Engineering Science, University of Auckland, New Zealand*

Applications are invited for an upcoming 3-year PhD scholarship at the Department of Engineering Science (University of Auckland, New Zealand). The PhD project will be part of the research project "Novel Decomposition Techniques for Multiobjective Optimisation". The successful candidate will work on the integration of decomposition techniques such as Dantzig-Wolfe and Bender's decomposition in multiobjective optimisation methods, and their potential applications. The PhD candidate will be working with Dr Andrea Raith (Engineering Science, University of Auckland), and Associate Professor Richard Lusby (Danish Technical University, Copenhagen, Denmark). Questions can be directed to Andrea Raith ([a.raith@auckland.ac.nz](mailto:a.raith@auckland.ac.nz)).



#### **Scholarship details**

The upcoming scholarship will provide \$27,500 per annum, and covers fees up to \$7,500 per annum. The PhD candidate has the opportunity to visit Richard Lusby at Danish Technical University. The university also provides support that can be used towards conference travel and other research expenses. The scholarship is available to domestic and international students, with a start date from November 2017.

#### **Application**

The scholarship will be awarded based on academic excellence. Applicants should have an excellent degree (equivalent to NZ first-class Bachelor (Honours) degree) in Operations Research, or related subjects (mathematics with a focus on optimisation, computer science or equivalent). Knowledge of multiobjective optimisation and decomposition techniques is an advantage, and computer programming experience is expected. The applicant must have a GPA/GPE of 7.00 or above. Awardees must also meet all requirement of enrolment in the PhD programme.



Please note the university's English language requirements for non-native speakers: <https://www.auckland.ac.nz/en/study/~postgraduate-english-language-requirements.html>

Please send your applications to Andrea Raith by September 30, 2017. Please include a cover letter stating your motivation for undertaking a PhD, and interest in the proposed topic. Also include your CV, certificates and transcripts of your degree(s), and reference letters (at least one from an academic staff member who supervised you in a research project). Please send all documents in pdf format. Short-listed applicants will be interviewed.

Candidates are encouraged to apply as soon as possible (and by September 30, 2017 at the latest). The position will remain open until filled by a suitable candidate.

**More information**

Andrea Raith <https://unidirectory.auckland.ac.nz/profile/a-raith>

Richard Lusby

<http://www.dtu.dk/english/service/phonebook/person?id=53320&tab=2&qt=dtupublicationquery>

Department of Engineering Science <http://www.des.auckland.ac.nz/en.html>

Information for prospective postgraduate (PhD) students

<https://www.auckland.ac.nz/en/study/applications-and-admissions/how-to-apply/postgraduate-admission.html>

Living and studying in Auckland <https://www.auckland.ac.nz/en/study/international-students.html>

## 5 New Books/Publications

This section presents a list of books and papers recently published. This list is by no means exhaustive. If you want your recent publications to appear in the next newsletter, please send an email with the complete citation of your work to [lucie.galand@dauphine.fr](mailto:lucie.galand@dauphine.fr).

### 5.1 Books and Book Chapters

G.W. Evans, **Multiple Criteria Decision Analysis for Industrial Engineering: Methodology and Applications**, *CRC Press, Taylor and Francis Group*, 2017.

R. Ramanathan, M. Mathirajan, A. R. Ravindran (Eds.), **Big Data Analytics Using Multiple Criteria Decision Making Models**, *CRC Press, Taylor and Francis Group*, 2017.

R. Sengupta, **Other decision-making models**, Chapter 5, In: *Decision Sciences: Theory and Practice*, *CRC Press, Taylor and Francis Group*, 2016.

### 5.2 Journal Papers

R. Aggarwal, L. Rider, N. Ruperto *et al.* for the International Myositis Assessment and Clinical Studies Group and the Paediatric Rheumatology International Trials Organisation, **2016 American College of Rheumatology/European League Against Rheumatism criteria for minimal, moderate, and major clinical response in adult dermatomyositis and polymyositis**, *Annals of the Rheumatic Diseases*, 76(5):792-801, 2017.

R. Aggarwal, L. Rider, N. Ruperto *et al.* for the International Myositis Assessment and Clinical Studies Group and the Paediatric Rheumatology International Trials Organisation, **2016 American College of Rheumatology/European League Against Rheumatism criteria for minimal, moderate, and major clinical response in adult dermatomyositis and polymyositis: An International Myositis Assessment and Clinical Studies Group/Paediatric Rheumatology International Trials Organisation Collaborative Initiative**, *Arthritis & Rheumatology*, 69(5):898-910, 2017.

O. U. Akaa, A. Abu, M. Spearpoint, S. Giovinazzi, **Group-analytic network process for balancing stakeholder views on fire protection of steel-framed buildings**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4): 162-176, 2017.

R. Allmendinger, M.T.M. Emmerich, J. Hakanen, Y. Jin, E. Rigoni, **Surrogate-assisted multicriteria optimization: Complexities, prospective solutions, and business case**, *Journal of Multi-Criteria Decision Analysis*, 24(1-2):5-24, 2017.

R. Allmendinger, M. Ehrgott, X. Gandibleux, M. J. Geiger, K. Klamroth, M. Luque, **Navigation in multiobjective optimization methods**, *Journal of Multi-Criteria Decision Analysis*, 24(1-2):57-70, 2017.

J. Bai, C. del Campo, L. Robin Keller, **Markov Chain Models in Practice: A Review of Low Cost Software Options**, *Investigación Operacional*, 38(1):56-62, 2017.

C. Bazgan, F. Jamain, D. Vanderpooten, **Discrete representation of the non-dominated set for multi-objective optimization problems using kernels**, *European Journal of Operational Research*, 260(3):814-827, 2017.

K. Belahcène, C. Labreuche, N. Maudet, V. Mousseau, W. Ouerdane, **Explaining robust additive utility models by sequences of preference swaps**, *Theory and Decision*, 82(2):151-183, 2017.

- F. Ben Abdelaziz, H. Masri, H. Alaya, **A Recourse Goal programming Approach for Airport Bus Routing Problem**, *Annals of Operations Research*, 251(1):383-396, 2017.
- M. Bhaskara Raju, A. Ishizaka, **Mapping verbal AHP scale to numerical scale for cloud computing strategy selection**, *Applied Soft Computing*, 53:111–118, 2017.
- F. Bökler, M. Ehrgott, C. Morris, P. Mutzel, **Output-sensitive complexity of multiobjective combinatorial optimization**, *Journal of Multi-Criteria Decision Analysis*, 24(1-2):25-36, 2017.
- S. Çakır, **Measuring logistics performance of OECD countries via fuzzy linear regression**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4):177-186, 2017.
- J.C. Cegan, A.M. Fillion, J.M. Keisler, I. Linkov, **Trends and applications of multi-criteria decision analysis in environmental sciences: literature review**, *Environment Systems and Decision*, 37(2):123-133, 2017.
- M. Cornu, T. Cazenave, D. Vanderpooten, **Perturbed Decomposition Algorithm applied to the multi-objective Traveling Salesman Problem**, *Computers and Operations Research*, 79:314-330, 2017.
- K. Dächert, K. Klamroth, R. Lacour, D. Vanderpooten, **Efficient computation of the search region in multi-objective optimization**, *European Journal of Operational Research*, 260(3):841-855, 2017.
- L.C. Dias, C. Henggeler Antunes, G. Dantas, N. Castro, L. Zamboni, **A multi-criteria approach to sort and rank policies based on Delphi qualitative assessments and ELECTRE TRI: the case of smart grids in Brazil**, *Omega*, in press, 2017.
- E. Ersek Uyanik, V. Mousseau, M. Pirlot, O. Sobrie, **Enumerating and categorizing positive Boolean functions separable by a k-additive capacity**, *Discrete Applied Mathematics*, 229:17-30, 2017.
- S. Faizi, T. Rashid, W. Sałabun, S. Zafar, J. Wątróbski, **Decision Making with Uncertainty Using Hesitant Fuzzy Sets**, *International Journal of Fuzzy Systems*, 1-11, 2017.
- S. Faizi, W. Sałabun, T. Rashid, J. Wątróbski, S. Zafar, **Group Decision-Making for Hesitant Fuzzy Sets Based on Characteristic Objects Method**, *Symmetry*, 9(8), 2017.
- J.C. Ferreira, C.M. Fonseca, R. Denysiuk, A. Gaspar-Cunha, **Methodology to select solutions for multiobjective optimization problems: Weighted stress function method**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4):103-120, 2017.
- J.R. Figueira, C.M. Fonseca, P. Halffmann, K. Klamroth, L. Paquete, S. Ruzika, B. Schulze, M. Stiglmayr, D. Willems, **Easy to say they are Hard, but Hard to see they are Easy - Towards a Categorization of Tractable Multiobjective Combinatorial Optimization Problems**, *Journal of Multi-Criteria Decision Analysis*, 24(1-2):82-98, 2017.
- R. Garg, **Optimal selection of E-learning websites using multiattribute decision-making approaches**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4):187-196, 2017.
- L.F.A.M. Gomes, **The presence of risk in decision-making: A brief note**, *Revue of Science, Technology and Innovation*, 1(2):62-65, 2017.
- L. Gourvès, J. Monnot, F. Pascual, D. Vanderpooten, **Bi-objective matchings with the triangle inequality**, *Theoretical Computer Science*, 670:1-10, 2017.



- M.C. Gouveia, E.D. Neves, L.C. Dias, C. Henggeler Antunes, **Performance evaluation of Portuguese mutual fund portfolios using the value-based DEA method**, *Journal of the Operational Research Society*, 1-13, 2017.
- D. Griffin, E. Dickenson, J. O'Donnell *et al.*, **The Warwick Agreement on femoroacetabular impingement syndrome (FAI syndrome): an international consensus statement**, *British Journal of Sports Medicine*, 50:1169-1176, 2016.
- N. Grima, S. Singh, B. Smetschka, **Decision making in a complex world: Using OPTamos in a multi-criteria process for land management in the Cuitzmala watershed in Mexico**, *Land Use Policy*, 67:73-85, 2017.
- R. van Haveren, S. Breedveld, M. Keijzer, P. Voet, B.J.M. Heijmen, W. Ogryczak, **Lexicographic extension of the reference point method applied in radiation therapy treatment planning**, *European Journal of Operational Research*, 263(1):247-257, 2017.
- R. van Haveren, W. Ogryczak, G.M. Verduijn, M. Keijzer, B.J.M. Heijmen, S. Breedveld, **Fast and fuzzy multi-objective radiotherapy treatment plan generation for head and neck cancer patients with the lexicographic reference point method (LRPM)**, *Physics in Medicine and Biology*, 62(11):4318-4332, 2017.
- S. Ihrig, I. Alessio, M. Alwine, **Target Setting for Indirect Processes: A New Hybrid Method for Continuous Improvement Management of Indirect Processes**, *Production Planning & Control*, 28(3):220-231, 2017.
- A. Ishizaka, **Visual management for decision analysis**, *International Journal of the Analytic Hierarchy Process*, 9(1):141-146, 2017.
- A. Ishizaka, G. Maynard, **MacBethSort: a multiple criteria decision method for sorting strategic products**, *Journal of the Operational Research Society*, advance online publication, 68(1):53-61, 2017.
- N. Jaini, S. Utyuzhnikov, **Trade-off ranking method for multi-criteria decision analysis**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4):121-132, 2017.
- S. Kaddani, D. Vanderpooten, J.M. Vanpeperstraete, H. Aissi, **Weighted sum model with partial preference information: application to Multi-Objective Optimization**, *European Journal of Operational Research*, 260(2):665-679, 2017.
- C. Kahraman, M. Keshavarz Ghorabae, E. K. Zavadskas, S. Cevik Onar, M. Yazdani, B. Oztaysi, **Intuitionistic fuzzy EDAS method: an application to solid waste disposal site selection**, *Journal of Environmental Engineering and Landscape Management*, 25(1):1-12, 2017.
- I. Kaliszewski, D. Samuelson, **Models that are never wrong**, *OR/MS Today*, 44(3):24-27, 2017.
- G. Karakaya, M. Koksalan, S.D. Ahipasaoglu, **Interactive algorithms for a broad underlying family of preference functions**, *European Journal of Operational Research*, in press, 2017.
- M. Keshavarz Ghorabae, M. Amiri, E. Zavadskas, J. Antuchevičienė, **Assessment of third-party logistics providers using a CRITIC–WASPAS approach with interval type-2 fuzzy sets**, *Transport*, 32(1):66-78, 2017.
- M. Keshavarz Ghorabae, M. Amiri, E.K. Zavadskas, Z. Turskis, **Multi-criteria group decision-making using an extended EDAS method with interval type-2 fuzzy sets**, *E&M Ekonomie a Management*, 20(1):48-68, 2017.

- M. Keshavarz Ghorabae, E.K. Zavadskas, M. Amiri, J. Antucheviciene, **Evaluation by an area-based method of ranking interval type-2 fuzzy sets (EAMRIT-2F) for multi-criteria group decision-making**, *Transformations in Business and Economics*, 15(3):76-95, 2016.
- M. Keshavarz Ghorabae, E.K. Zavadskas, M. Amiri, Z. Turskis, **Extended EDAS Method for Fuzzy Multi-criteria Decision-making: An Application to Supplier Selection**, *International Journal of Computers Communications & Control*, 11(3):358-371, 2016.
- G. Kirlik, S. Sayin, **Bilevel programming for generating discrete representations in multiobjective optimization**, *Mathematical Programming*, 2017.
- K. Klamroth, S. Mostaghim, B. Naujoks, S. Poles, R. Purshouse, G. Rudolph, S. Ruzika, S. Sayin, M.M. Wiecek, X. Yao, **Multiobjective optimization for interwoven systems**, *Journal of Multi-Criteria Decision Analysis*, 24(1-2):71-81, 2017.
- L.A. Koban, J. MacDonald Gibson, **Small-unit water purifiers for remote military outposts: A new application of multicriteria decision analysis**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4):146-161, 2017.
- M. Köksalan, V. Mousseau, S. Özpeynirci, **Multicriteria Sorting with Category Size Restrictions**, *International Journal of Information Technology and Decision Making*, 16(1):5-23, 2017.
- M.H. Kurth, S. Larkin, J.M. Keisler, I. Linkov, **Trends and applications of multi-criteria decision analysis: use in government agencies**, *Environment Systems and Decision*, 37(2):134-143, 2017.
- T.J. Lahtinen, J.H. Guillaume, R.P. Härmäläinen, **Why pay attention to paths in the practice of environmental modelling?**, *Environmental Modelling & Software*, 92:74-81, 2017.
- T.J. Lahtinen, R.P. Härmäläinen, J. Liesiö, **Portfolio decision analysis methods in environmental decision making**, *Environmental Modelling & Software*, 94:73-86, 2017.
- R. Lankaites Pinheiro, D. Landa-Silva, J. Atkin, **A technique based on trade-off maps to visualise and analyse relationships between objectives in optimisation problems**, *Journal of Multi-Criteria Decision Analysis*, 24(1-2):37-56, 2017.
- F. Lolli, A. Ishizaka, R. Gamberini, B. Rimini, E. Balugani, L. Prandini, **Requalifying public buildings and utilities using a group decision support system**, *Journal of Cleaner Production*, 164:1081-1092, 2017.
- C. López, A. Ishizaka, **GAHPSort: A new group multi-criteria decision method for sorting a large number of the cloud-based ERP solutions**, *Computers in Industry*, 92:12-14, 2017.
- N. Martelli, P. Hansen, H. van den Brink *et al.*, **Combining multi-criteria decision analysis and mini-health technology assessment: A funding decision-support tool for medical devices in a university hospital setting**, *Journal of Biomedical Informatics*, 59:201-208, 2016.
- H. Masri, **A multiple stochastic goal programming approach for the agent portfolio selection problem**, *Annals of Operations Research*, 251(1):179-192, 2017.
- H. Masri, **A Shariah-Compliant Portfolio Selection Model**, *Journal of the Operational Research Society*, 2017.
- H. Masri, Y. Youssef, **A Multiple Objective Stochastic Programming Model for Working Capital**, *Technological Forecasting and Social Change Journal*, in press, 2017.

- A. Mazziotta, D. Podkopaev, M. Trivino, K. Miettinen, T. Pohjanmies, M. Monkkonen, **Quantifying and Resolving Conservation Conflicts in Forest Landscapes via Multiobjective Optimization**, *Silva Fennica*, 51(1), article 1778, 2017.
- H. Mohammed, E. Al-Dahneem, A. Hamadi, **A comparative analysis for adopting an innovative pedagogical approach of flipped teaching for active classroom learning**, *Journal of Global Business and Social Entrepreneurship*, 3(5):86-94, 2016.
- V. Mousseau, O. Ozpeynirci, S. Ozpeynirci, **Inverse Multiple Criteria Sorting Problem**, *Annals of Operations Research*, 2017.
- J. Mustajoki, M. Marttunen, **Comparison of multi-criteria decision analytical software for supporting environmental planning processes**, *Environmental Modelling & Software*, 93:78-91, 2017.
- M. Ozmen, G. Karakaya, M. Koksalan, **Interactive evolutionary approaches to multi-objective feature selection**, *International Transactions in Operational Research*, 2017.
- O. Ozpeynirci, **On nadir points of multiobjective integer programming problems**, *Journal of Global Optimization*, 2017.
- S. Ozpeynirci, O. Ozpeynirci, V. Mousseau, **An interactive algorithm for multiple criteria constrained sorting problem**, *Annals of Operations Research*, 2017.
- D. Pinto, M. Danilovich, P. Hansen *et al.*, **Qualitative development of a discrete choice experiment for physical activity interventions to improve knee osteoarthritis**, *Archives of Physical Medicine and Rehabilitation*, 98(6):1210-1216, 2017.
- L. Rider, R. Aggarwal, A. Pistorio *et al.* for the International Myositis Assessment and Clinical Studies Group and the Paediatric Rheumatology International Trials Organisation, **2016 American College of Rheumatology/European League Against Rheumatism criteria for minimal, moderate, and major clinical response in juvenile dermatomyositis**, *Annals of the Rheumatic Diseases*, 76(5):782-791, 2017.
- L. Rider, R. Aggarwal, A. Pistorio *et al.* for the International Myositis Assessment and Clinical Studies Group and the Paediatric Rheumatology International Trials Organisation, **2016 American College of Rheumatology/European League Against Rheumatism Criteria for minimal, moderate, and major clinical response in juvenile dermatomyositis: An International Myositis Assessment and Clinical Studies Group/Paediatric Rheumatology International Trials Organisation Collaborative Initiative**, *Arthritis & Rheumatology*, 69(5):911-23, 2017.
- L. Rider, N. Ruperto, R. Aggarwal *et al.*, **2016 ACR-EULAR adult dermatomyositis and polymyositis and juvenile dermatomyositis response criteria - methodological aspects**, *Rheumatology*, in press, 2017.
- L. Robin Keller, J. Simon, **Preference Functions for Spatial Risk Analysis**, *Risk Analysis*, to appear.
- L. Robin Keller, Y. Wang, **Information Presentation in Decision and Risk Analysis: Answered, Partly Answered, and Unanswered Questions**, *Risk Analysis*, 37(6):1132-1145, 2017.
- J. Romão, K. Machino, P. Nijkamp, **Assessment of wellness tourism development in Hokkaido: a multicriteria and strategic choice analysis**, *Asia-Pacific Journal of Regional Science*, 1(1):265-290, 2017.

- A. Shmueli, **Do the equity-efficiency preferences of the Israeli Basket Committee match those of Israeli health policy makers?**, *Israel Journal of Health Policy Research*, 6(20), 2017.
- A. Shmueli, O. Golan, F. Paolucci, E. Mentzakis, **Efficiency and equity considerations in the preferences of health policymakers in Israel**, *Israel Journal of Health Policy Research*, 6(18), 2017.
- K. Sindhya, A. Manninen, K. Miettinen, J. Pippuri, **Design of a Permanent Magnet Synchronous Generator using Interactive Multiobjective Optimization**, *IEEE Transactions on Industrial Electronics*, to appear.
- M. Slagboom, M. Kargo, D. Edwards, A. Sørensen, J. Thomasen, L. Hjortø, **Herd characteristics influence farmers' preferences for trait improvements in Danish Red and Danish Jersey cows**, *Acta Agriculturae Scandinavica, Section A - Animal Science*, 66(3):177-82, 2016.
- A. Soares, A. Gomes, C. Henggeler Antunes, C. Oliveira, **A Customized Evolutionary Algorithm for Multiobjective Management of Residential Energy Resources**, *IEEE Transactions on Industrial Informatics*, 13(2):492-501, 2017.
- W. Taylor, **Pros and cons of conjoint analysis of discrete choice experiments to define classification and response criteria in rheumatology**, *Current Opinion in Rheumatology* 28(2):117-21, 2016.
- A. Trivedi, A. Singh, **Prioritizing emergency shelter areas using hybrid multi-criteria decision approach: A case study**, *Journal of Multi-Criteria Decision Analysis*, 24(3-4):133-145, 2017.
- D. Vanderpooten, L. Weerasena, M.M. Wiecek, **Covers and approximations in multiobjective optimization**, *Journal of Global Optimization*, 67(3):601-619, 2017.
- R. Walsh, B. Aliarzadeh, C. Mastrogiacomo, **Patient strength of preference for best practices in patient education**, *Journal of Community Medicine & Health Education*, 6(6):1-8, 2016.
- T. Wang, V. Mousseau, N. Pedroni, E. Zio, **An empirical classification-based framework for the safety criticality assessment of energy production systems, in presence of inconsistent data**, *Reliability Engineering and System Safety*, 157:139-151, 2017.
- R. Whiting, P. Hansen, A. Sen, **A tool for measuring SMEs' reputation, engagement and goodwill: A New Zealand exploratory study**, *Journal of Intellectual Capital*, 18(1):170-188, 2017.

### 5.3 Conference Proceedings

- K. Belahcène, C. Labreuche, N. Maudet, V. Mousseau, W. Ouerdane, **A Model for Accountable Ordinal Sorting**, Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI 2017), 814-820, 2017.
- T. Chugh, K. Sindhya, K. Miettinen, Y. Jin, T. Kratky, P. Makkonen, **Surrogate-assisted Evolutionary Multiobjective Shape Optimization of an Air Intake Ventilation System**, Proceedings of the 2017 IEEE Congress on Evolutionary Computation (CEC 2017), 2017.
- J. Hakanen, T. Chugh, K. Sindhya, Y. Jin, K. Miettinen, **Connections of Reference Vectors and Different Types of Preference Information in Interactive Multiobjective Evolutionary Algorithms**, Proceedings of the 2016 IEEE Symposium Series on Computational Intelligence (SSCI 2016), 2016.

H. Monzon, H. Aguirre, S. Verel, A. Liefooghe, B. Derbel, K. Tanaka, **Closed state model for understanding the dynamics of MOEAs**, Proceedings of *Genetic and Evolutionary Computation Conference (GECCO 2017)*, 2017.

M. Sagawa, H. Aguirre, F. Daolio, A. Liefooghe, B. Derbel, S. Verel, K. Tanaka, **Learning variable importance to guide recombination on many-objective optimization**, Proceedings of the *5th International Conference on Smart Computing and Artificial Intelligence (SCAI 2017)*, 2017.

J. Shi, Q. Zhang, B. Derbel, A. Liefooghe, **A parallel tabu search for the unconstrained binary quadratic programming problem**, Proceedings of the *2017 IEEE Congress on Evolutionary Computation (CEC 2017)*, 557-564, 2017.

A. Soares, A. Gomes, C. Henggeler Antunes, **An Evolutionary Algorithm for the Optimization of Residential Energy Resources**, In: *Advances in Energy System Optimization: Proceedings of the first International Symposium on Energy System Optimization*, 3-16, 2017.

O. Sobrie, V. Mousseau, M. Pirlot, **A Population-Based Algorithm for Learning a Majority Rule Sorting Model with Coalitional Veto**, Proceedings of the *9th International Conference Evolutionary Multi-Criterion Optimization (EMO 2017)*, 575-589, 2017.

#### 5.4 Reports

E. Tacconelli, N. Magrini, Co-ordinating Group, **Global priority list of antibiotic-resistant bacteria to guide research, discovery, and development of new antibiotics**, World Health Organization, Short Summary, 2017.

European Centre for Disease Prevention and Control, **ECDC Tool for the Prioritisation of Infectious Disease Threats – Handbook and Manual**, ECDC, 2017.



## 6 Past Conferences, Workshops, and other News

### 6.1 Information about the IFORS Developing Countries On-Line Resources

Dear colleagues,

The aim of the IFORS Developing Countries On-Line Resources page is to offer the OR worker all publicly-available materials on the topic of OR for Development. It also aims to provide a venue for people who are working in the area to share their completed or in-process work, learn from others, and stimulate comments and discussions on the work.

Regarding IFORS Developing Countries OR resources website, its regular updates - and your possible submission of "free" (not copyright protected) material, you might occasionally visit [http://ifors.org/developing\\_countries/index.php?title=Main\\_Page](http://ifors.org/developing_countries/index.php?title=Main_Page).

"Operational Research" (OR) is the discipline of applying advanced analytical methods to help make better decisions. By using techniques such as problem structuring methods and mathematical modelling to analyze complex situations, Operational Research gives executives the power to make more effective decisions and build more productive systems.

The International Federation of Operational Research Societies (IFORS; <http://ifors.org/>) is an almost 60-year old organization which is currently composed of 51 national societies.

Regional Groups of IFORS are:

- ALIO (The Latin American Ibero Association on Operations Research),
- APORS (The Association of Asian-Pacific Operational Research Societies),
- EURO (The Association of European Operational Research Societies),
- NORAM (The Association of North American Operations Research Societies).

IFORS conferences are taking place every three years; IFORS 2017 has just been celebrated successfully in Quebec City, Canada.

Thank you very much for your attention.

*Willi Weber*

Middle East Technical University, Institute of Applied Mathematics, 06531 Ankara, Turkey

## 7 Imprints

**Johannes Siebert:** [newsletter@mcidsociety.org](mailto:newsletter@mcidsociety.org), [johannes.siebert@mci.edu](mailto:johannes.siebert@mci.edu)

Lucie Galand: [lucie.galand@dauphine.fr](mailto:lucie.galand@dauphine.fr)

Jana Krejčí: [jana.krejci@unitn.it](mailto:jana.krejci@unitn.it)

Salvatore Corrente: [salvatore.corrente@unict.it](mailto:salvatore.corrente@unict.it)

Sandra Huber: [sandra-huber@hsu-hh.de](mailto:sandra-huber@hsu-hh.de)

We are working on publishing the newsletter of the International Society on Multiple Criteria Decision Making two times a year. Usually, the deadline for the January issue is January 10th and the issue is intended to be published “around January 20th”. The deadline for the September issue is usually August 20th and the issue is intended to be published “at the beginning of September”. Contributions can be sent at any time to the editor (please see the address provided above).