

International Society on Multiple Criteria Decision Making

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Letter from the President

Dear Members of the International Society on MCDM,

It is time for the second issue of our newsletter for 2016 and I am delighted to address you again this year.

I am happy to report that our membership is steadily increasing. As of today, we have 2293 members from 96 different countries. In order to expand our communication channels, we recently established a LinkedIn group on International Society on Multiple Criteria Decision Making. Currently we have 324 members who have been sharing information including calls for conferences, book chapters, special issues of journals, various announcements, and their recent work. The group is open to all members of the International Society and I invite you all to join if you have not already done so.



I am excited that next year is an MCDM conference year. The conference will take place in Ottawa, Canada, July 10-14, 2017, chaired by Sarah Ben Amor. The preparations are underway and you can find brief information in this Newsletter about the conference. Please make sure to visit the conference web site, make a note of the deadlines, and plan to attend. Our conferences are not only scientifically great, but are also fun. I am sure we will have a great time in Ottawa.

Parallel to the conference, we have been organizing a doctoral dissertation competition since 2011. I have been impressed with the finalists and awardees in the past and I am very pleased that we can listen to and recognize such high quality work. The competition is chaired by Jyrki Wallenius and he included information on the application process in this newsletter. I urge all qualified individuals to apply for this prestigious award.

In addition to the dissertation award, we have our Society Awards and the Wiley Prize given at our conferences. Currently, Theo Stewart is chairing these events and he will include announcements in the next issue of the Newsletter in February 2017. Please keep these awards in mind and look for the announcements.

The 12th MCDA/M Summer School was organized by Danielle Morais, Luciana Hazin and their colleagues in Recife, Brazil, during July 18-29, 2016. As I have mentioned before, I am a great fan of our summer schools as they serve the future of our field very well. I was at the summer school during its second week and I was impressed with the quality of lectures, case work, and the social program. The participants were enthusiastic and creative, coming from many different countries all over the world. Overall, the summer school was very successful in educating and

entertaining a new generation of MCDM researchers. I am sure we will enjoy observing their successes and contributions to our field and to our Society in the near future. I would like to thank all lecturers and the organizers for their voluntary contributions. I would especially like to mention and praise the efforts of Danielle Morais, Luciana Hazin, and their colleagues in making the summer school a big success. They mobilized their whole department and went out of their ways to make sure that all lecturers and students had a great time during these two weeks and got a taste of beautiful Recife. From what I have seen, it seems to me that all Brazilians are professional dancers and it is not possible even for visitors to not dance in Brazil! There is a detailed account of the summer school in this newsletter written by Danielle and Luciana followed by the short impressions of some of the participants.

You can find several meeting announcements and calls for papers in Section 3 of this newsletter. All these events have strong MCDM emphases and I hope to see many of you at these meetings.

I learned with great sadness that Howard Raiffa passed away on July 8, 2016 at the age of 92. He was a legend in our field and a brilliant writer. His 1968 “Decision Analysis” book is still my favorite that I use in my decision analysis classes. His joint book with Ralph Keeney “Decisions with Multiple Objectives” is a classic in our area and a regular reference book in my courses. In addition to his numerous accomplishments, he received the Gold Medal of our Society in 1998. He was the founding director of the International Institute for Applied Systems Analysis, Austria, which was instrumental in the collaboration of eastern and western scientists during the cold war and later. Howard Raiffa’s passing away is a great loss for all of us. In this newsletter, we are publishing a short biography in his memory.

I would like to thank Johannes Siebert and his editorial team for doing 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
September 8, 2016
Ankara

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 Call for session proposals: 24th International Conference on Multiple Criteria Decision Making, Ottawa, Canada, July 10–14, 2017

Dear colleagues and friends,

The preparations for the 24th International Conference on Multiple Criteria Decision Making (MCDM2017), July 10-14, 2017, Telfer School of Management, University of Ottawa, are going on as scheduled. Given that the last time the MCDM international conference was held in Canada was in 2004, in Whistler, B.C, we are very pleased to be organizing the event in Canada again, in the country's *sesquicentennial* year. The conference theme is one that will be of broad interest to scholars as well as industry partners: "Creating a sustainable society." The choice of this topic really reflects the fact that many of the latest MCDM innovations bring into focus diverse sustainable management scenarios for businesses and public-sector organizations, provide essential tools to clarify and evaluate the associated trade-offs, and encourage optimal decision-making around social, environmental, health, safety, and performance objectives.

The conference website is now up and running <http://sites.telfer.uottawa.ca/mcdm2017/>. I invite you to bookmark this page, and check it regularly for news, updates, and recent developments. At this point, two important dates are to be mentioned:

- The call for invited sessions will be issued on October 1st.
- The first call for abstracts will be issued on November 1st.

You are all most welcome to MCDM2017, in Ottawa, Canada's beautiful capital city.

Sarah Ben Amor

Chair of the conference

1.2 Call for the International MCDM Doctoral Dissertation Competition

At the 24th International Conference on Multiple Criteria Decision Making, the International Society on Multiple Criteria Decision Making will bestow the MCDM Doctoral Dissertation Award upon a scholar who has recently obtained a doctoral degree and demonstrated excellence in her or his doctoral dissertation research in Multiple Criteria Decision Making (MCDM) or a related field. The MCDM Doctoral Dissertation Competition identifies and recognizes outstanding doctoral dissertation research, completed since the beginning of 2015, in the development of theory, methodology, and/or the application of theory or methodology to MCDM.

The MCDM Doctoral Dissertation Award Committee will evaluate the applications, identify finalists and provide recommendations to the MCDM Executive Committee for the final decision. The award will be announced at the 24th International Conference on Multiple Criteria Decision Making, Ottawa, Canada, July 10th to July 14th, 2017. The finalists are expected to give a talk at the conference. The finalists will be exempt from paying the conference fee.

Deadline for applications: Please email the zip file of the application packet to the awards committee at phdaward@mcdmsociety.org by **March 1st, 2017**. The finalists will be informed by May 1st, 2017.

Eligibility: Those whose dissertation is in MCDM or a related field and who graduated with a doctoral degree after January 1st, 2015. Only dissertations which have been written in English are eligible.

The application packet should include the following documents (all of which must be in English, except possibly the diploma):

- Cover letter
- Applicant's 2-3 page resume
- Scanned copy of the original diploma of the Doctoral Degree
- Electronic copy of the Doctoral Dissertation
- Extended Abstract of the Doctoral Dissertation in English, limit of four single-spaced pages
- Copies of publications/patents based on the Doctoral Dissertation, if any. In this case, we need a statement from the supervisor saying that the publication(s) derive from the dissertation. Also include publications accepted for a journal, accompanied with the Editor's acceptance letter.
- An endorsement letter from the supervisor(s), highlighting the significance of the dissertation
- (Optional) Additional supporting letters that the applicant wishes to attach

Jyrki Wallenius

Chair of the International MCDM Doctoral Dissertation Committee

Email: Jyrki.Wallenius@aalto.fi

2 Howard Raiffa: in Memoriam

Howard Raiffa, a giant in Game Theory and Decision Analysis passed away on July 8, 2016. His work had a big impact on many researchers in MCDM. In his memory, we reprint his biography that appeared in our book that was published in 2011:

Multiple Criteria Decision Making: From Early History to the 21st Century, M. Köksalan, J. Wallenius, and S. Zionts, World Scientific, Singapore, June 2011, pp. 129-131.



Howard Raiffa was born in 1924 in New York City. When Howard was seven, the Raiffa family moved to a four-room apartment in the Bronx that overlooked the school yard where he spent many daylight hours playing sports. From about the age of 12, he found his passion in basketball and played it incessantly. He chose to attend a huge high school with an outstanding basketball team. In his senior year he became captain of the team.

His family always wanted their children to do well in school, even though the family was not academically-oriented in any way. Raiffa entered the (free) City College of New York (CCNY) primarily to take mathematics courses. Although he excelled in mathematics, he was a B student otherwise. He entered the army during his sophomore year at CCNY.

After several years in the Army Air Force, much of it in Japan, he completed his military service and then entered the University of Michigan to study actuarial science. Because of his prior coursework, he was able to complete his degree in a very short time.

He entered the Michigan statistics' master's program, and completed that degree in one year (1946). He then pursued his Ph.D. degree in Mathematics at Michigan. He became interested in game theory, and wrote a report on it for a research grant that helped to support him while he was doing his degree. Prior to his oral exam, members of the faculty read the report he had written. They were sufficiently impressed with his work that they decided he need not do an oral exam. Furthermore they accepted his report as his doctoral dissertation! He completed his degree in 1951, with his dissertation work providing seminal research in game theory. Because of his surprise and his lateness in the academic season completing his dissertation, he took a one-year postdoctoral position in a joint program in mathematics and psychology at the University of Michigan.

The next year (1952) Raiffa joined the Department of Mathematical Statistics at Columbia University as a faculty member, where he remained for five years. While there he wrote a book (with Duncan Luce) titled *Games and Decisions*. Harvard hired him in 1957. He is currently the Frank P. Ramsey Professor (Emeritus) of Managerial Economics, a joint chair held in the Business School and the Kennedy School of Government at Harvard University.

Raiffa is an originator of the famous "decision tree." He has done extensive research on developing techniques to help decision makers think more systematically about complex choices involving uncertainties and tradeoffs. He has also actively worked in negotiation theory. As an advisor to

McGeorge Bundy, White House assistant for national security under Presidents Kennedy and Johnson, Raiffa helped negotiate the creation of an East-West think tank aimed at reducing Cold War tensions. The think tank was named the International Institute for Applied Systems Analysis (IIASA) and is located in Laxenburg, Austria. Raiffa became the Institute's first director, and served in that capacity from 1972 to 1975. He also was one of four founders of the Kennedy School at Harvard, and was a cofounder of the Negotiation Program of the Harvard Law School. He retired from the active faculty in December 1994.

Howard Raiffa has received many awards, including several honorary doctorates (including degrees from Carnegie Mellon, Harvard, the University of Michigan, Northwestern University, and Ben-Gurion University of the Negev). He is also a recipient of the International Society on Multiple Criteria Decision Making's Gold Medal. He and Ralph Keeney received the 2002 INFORMS Expository Writing Award for their publications in operations research and the management sciences that have set an exemplary standard of exposition. In addition Raiffa was elected to the American Academy of Sciences and the National Academy of Engineering.

Raiffa advised approximately ninety Ph. D. students during his academic career.

Raiffa is author or co-author of many publications including several classic books. These include (with Ralph Keeney) "Decisions with Multiple Objectives: Preferences and Value Tradeoffs" published in 1976, a three-authored book (Keeney, Raiffa, and John Hammond), 'Smart Choices: A Practical Guide to Making Better Decisions.'1998, and Negotiation Analysis: The Science and Art of Collaborative Decision Making (published with others, 2007).

Murat Köksalan

Jyrki Wallenius

Stanley Zionts

3 Upcoming Events and Call for Papers

3.1 A note from the MCDM Section of INFORMS

The 2016 INFORMS Annual Meeting is coming soon. It will take place 12-16 November, 2016 in Nashville, TN, and will provide an opportunity to bring together leading academics, industry experts, students, INFORMS members, and representatives of government agencies. Attendees can look forward to an exciting conference with 5,000 submitted abstracts and 80+ tracks filling all time slots.

The MCDM Cluster will maintain the strong presence it has established at the recent INFORMS annual meetings. The Cluster will feature 16 sessions with almost 60 talks which will also fill the entire conference from Sunday early morning (12 November) through Wednesday late afternoon (16 November). Additionally, a 75-minute tutorial on robust multiobjective optimization will be offered. To register or search the program, go to

<http://meetings2.informs.org/wordpress/nashville2016/>

The presenters include many members of the MCDM Society. I encourage all other members of the Society to attend the conference, build their professional network, and experience the appeal of the Music City USA.

I look forward to seeing many of you in Nashville.

Sincerely,

Margaret Wiecek,

President

MCDM Section

INFORMS

3.2 Second Call for Chapter Proposals for the Book Cases based on Multiple Criteria Decision Making/Aiding methods: Building and Solving Decision Models with Computer Implementations

An edited volume by:

Sandra Huber (Helmut-Schmidt-University, Hamburg, Germany)

Martin Josef Geiger (Helmut-Schmidt-University, Hamburg, Germany)

Adiel T. de Almeida (Universidade Dederal de Pernambuco, Brazil)

Submissions/ inquiries should be submitted electronically to:

MCDMA-Cases@hsu-hh.de

Scope of the book

Many practical problems comprise multiple criteria. Lucky enough, the scientific community has proposed numerous approaches for their solution or for a decision support/ aiding. The main objective of this book is to collect case studies for (PhD) students working on multicriteria decision aiding (MCDA) and multiple criteria decision making (MCDM), combining the introduction of a problem (case) with a method, and a (the description/ explanation) of a computer implementation. In this sense, each chapter is based on four pillars: the problem, the model building, the methods, and its realization.

We believe that case studies are an effective teaching tool, enriching traditional lecture material. Based on our experience with the 11th MCDA/M Summer School we can report that the majority of the participants stated that the investigated case studies were helpful (100 % of the answers on the 11th MCDA/M Summer School 2013 questionnaire) and interesting (95 % of the responses). In this context, it is expected that MCDA/M methods linked to case studies and computer implementations promote a deeper understanding of the investigated concept and help students to apply these methods to other problem areas.

Suggested case study topics include, but are not limited to the following:

- Robust Ordinal Regression
- Outranking
- MAVT/MAUT
- Decision Rule Approach
- Interactive methods
- Fuzzy Multiple Criteria Decision Making
- Decision Deck
- Problem structuring
- Preference Modelling

- Group Decision Making, Negotiations
- AHP/ANP
- Goal programming
- Data Envelopment Analysis
- Behavioral Issues in Decision Making

Target audience

The audience is composed by PhD- and BSc/MSc students who are interested in gaining an understanding of MCDA/MCDM methods and whose goals include the solving of problems with multiple conflicting objectives. Moreover, the book is suitable for university teachers who can use the book for their lectures and/or BSc/MSc seminars.

Proposals

- The proposal should provide an overview of the chapter in its entirety.
- A brief description of the case study and the used methods should be given. Please also mention implementation details/ how the methods are applied to the case study.
- The length of the proposal should not exceed 3 pages.
- Proposals must include the author's name, affiliation, mailing address and e-mail address. In case of multiple authors, all names etc., must be given and a single individual must be identified as primary point of contact.
- The chapters will be published in the International Series in Operations Research & Management Science, Springer International Publishing.
- All proposals should be submitted via mail to MCDMA-Cases@hsu-hh.de

Chapter Submissions

If accepted, the contributions should meet the following criteria:

- The submission should not exceed 30 pages.
- The chapters should include three elements: (i) A detailed description of the case, (ii) an introduction/ clear explanation of the methodological approach, and (iii) details on how to apply/ implement the technique to the given case.
- If necessary, and we expect this to be relevant for many contributions, supplementary material should be sent too. This could be additional data/ files, source code, implementations, etc.
- A template will be provided and should be used for the submission.

Important deadlines and dates

Submission of chapter proposals to editors: **October 31, 2016**

Notification of chapter proposal acceptance: **November 16, 2016**

Chapter submission to editors: **February 06, 2017**

3.3 MCDM Track in the EMO Conference - Submissions are Welcome until October 01, 2016



EMO 2017
 9th International Conference on
 Evolutionary Multi-Criterion Optimization
 March 19–22, 2017, in Münster, Germany

Submission Deadline: October 01, 2016 (opens August 2016)

Call for Papers

EMO 2017 is the 9th International Conference on Evolutionary Multi- Criterion Optimization, aiming to continue the success of previous EMO conferences. We will bring together both the EMO and the multiple criteria decision making (MCDM) communities and moreover focus on solving real-world problems in government, business and industry. The classical EMO format will be supplemented by an EMO competition.

Following the tradition of the EMO community, the conference will be in single session format, with papers provided as either oral or as poster presentations. The conference format will include:

- Invited keynote speakers
- EMO track
- MCDM track
- EMO competition

The conference will take place in the beautiful city of Münster (Germany) considered to be the cultural center of the Westphalia region as well as the bicycle capital of Germany.

We aim to discuss all aspects of EMO development and deployment, including (but not limited to):

- Theoretical foundations
- Constraint handling techniques
- Preference handling techniques
- Handling of continuous, combinatorial or mixed-integer problems
- Local search techniques
- Hybrid approaches
- Stopping criteria
- Parallel EMO models
- Performance evaluation
- Test functions and benchmark problems
- Algorithm selection approaches
- Many-objective optimization
- Large scale optimization
- Real-world applications
- EMO algorithm implementations

General Chairs:

Günter Rudolph (TU Dortmund, Germany), Heike Trautmann (University of Münster, Germany)

EMO Steering Committee: Carlos Coello Coello, David Corne, Kalyanmoy Deb, Peter Fleming, Carlos Fonseca, Hisao Ishibuchi, Joshua Knowles, Kaisa Miettinen, David Schaffer, Lothar Thiele, Eckart Zitzler



MCDM track

Papers are invited for the integrated MCDM track on new developments in the multiple criteria decision making community that might be blended with EMO themes. Original research, tutorial and survey papers are welcome in this track.

Moreover, in the real-world applications track papers are invited from within and outside the academic field on real-world problems in government, business, industry and interdisciplinary sciences, whose solutions have benefited from the recent application of EMO/MCDM methods, and papers addressing the issues that decision makers have in trusting formal approaches over their own experience and intuitions.

Kathrin Klamroth

Chair: Kathrin Klamroth

University of Wuppertal

4 Past Conferences, Workshops, and other News

4.1 MCDA/M Summer School, Recife-Pernambuco, Brazil

The 12th MCDA/M Summer School, an event first held 33 years ago, took place in Recife-Pernambuco, Brazil, from 18th to 29th July 2016. The aim of such MCDM Summer Schools is to provide a forum on the state-of-the-art of multiple criteria methods, and includes introducing new applications and software, for doctoral students/young researchers, so as to stimulate the formation of a network of young researchers in MCDA/M and to strengthen our society. Themes covered include:

- Exchanging knowledge and thereby providing an efficient and appropriate approach to discussing and making first attempts at tackling real world and real life decision problems;
- Discussing recent developments in MCDA/M methods and practices;
- Presenting software developments;
- Examining situations in which different MCDA/M approaches may be considered as tools that can and should be used to solve complex problems discussed throughout case study sessions.

To increase and exploit the entropy amongst participants and to enable them to take full advantage of opportunities to form strong networks, a student poster session was organized, which allowed them to advertise their work and interact with each other regarding their ongoing research. This session also saw to it that students could receive positive feedback both from experienced lecturers and student colleagues. During the first four days of the Summer School, 38 posters were presented.



The scientific program of the summer school consisted of lectures from guest speakers and discussions of case studies in working groups (see <http://cdsid.org.br/mc-summer->

school2016/program/). More specifically, it included 26 guest lectures (90 minutes each), 14 casework sessions (also 90 minutes each), 5 different case studies and 7 working groups. Topics covered: An Introduction to MCDA/MCDM; Applications in real world problems; Value-Focused Thinking and Problem Structuring; Preference Modelling; Outranking Methods; MAVT/MAUT (Multi-Attribute Value/Utility Theory); Robust Ordinal Regression; Decision Rule Approach; MCDM Group Decision; Interactive Methods of Multi-objective Optimization (IMMO); Multi-objective Combinatorial Optimization (MOCO); Evolutionary Multi-objective Optimization (EMO); Fuzzy Modelling in MCDM Problems; Decision Deck; "Meet the editor": Scientific writing and strategies of publications.

During this event, given its dynamic context and by demonstrating some flexibility, we introduced two new sessions; a new slot on Multi-objective optimization and a slot for "Biases in Decision Making".

Since the Summer School is a good occasion to cement and strengthen the future of the MCDM/A community by integrating participants with each other and encouraging networking, a slot, first mooted in the preliminary program, was included on the "MCDM community and History" (which also described society). At several points throughout the event, participants were urged to attend conferences on MCDM/A, particularly the next one in Ottawa, next year.

All lectures were thought-provoking, attractively presented, well-attended and highly appraised by students, so much so that the dominance relation with respect to the lectures far exceeded the allure of the attractions of and on the sun-bathed beach not a stone's throw away from the venue!!! For such a noteworthy outcome, we are extremely grateful to all colleagues who contributed to ensuring the scientific program was so outstanding and received such high assessment ratings and spontaneous praise in feedback from participants. In first name alphabetical order, these colleagues were: Adiel T. de Almeida, Carlos M. Fonseca, Danielle C. Morais, José Rui Figueira, Martin J. Geiger, Matthias Ehrgott, Milosz Kadzinski, Murat Köksalan, Petr Ekel, Ralph L. Keeney, Roman Słowiński, Salvatore Greco, and Sandra Huber.

The guest lectures were complemented with five different case studies. This coursework led to really interesting and well-crafted group presentations at the end of the school. We cannot over-emphasize the enthusiasm with which the students worked in these two weeks. This made the hearts of all involved in the delivery sing! We are very grateful to Martin Geiger for his support in planning and structuring the cases studies, and also to Danielle Morais, Luciana Alencar, Rodrigo Ferreira, Sandra Huber and all lecturers for mentoring during the casework sessions.



During the weekend, a social activity and Banquet was held on Sunday 24th July. We also made an excursion to the Brennand Factory and Studio and the Ricardo Brennand Institute. The Brennand Factory and Studio is an architectural ensemble and sculptural garden of great originality which exhibits a huge collection of ceramic art (a great variety of sculptures and paintings) produced by Francisco Brennand, an internationally-renowned sculptor from Pernambuco. The Ricardo

Brennand Institute is a museum where Summer School participants saw the world's largest collection of paintings by Frans Post, who was the first major artist to paint scenes of the colonial Brazil of the early-mid 17th century. This Institute holds a permanent collection of historic and artistic objects of various provenances and one of the largest collections of armory in the world, around 3,000 pieces. After the excursion, we held the Banquet at Spettus Steak House (Boa Viagem), a traditional Brazilian Barbecue Restaurant. During the banquet, one of the most spectacular moments of the Summer School took place: all participants, without exception, became instant specialist dancers of samba and frevo to the sound of live music. It was the apogee of the integration of all participants and lecturers, really fantastic!!! (see photos and videos at <http://cdsid.org.br/mc-summer-school2016/photos/>).



July is winter time in Recife. However, during the summer school it was warm and sunny most of the time with just a few showers of light rain. Participants explored Old Recife and also Olinda (a historic town that today is a dormitory town next to Recife) and made return visits in the somewhat scarce but nevertheless available free time.

89 students applied for the Summer School of whom 50 were selected and 46 registered – in the end we welcomed 44 attendees. The participants came from 17 countries. 61% were from Europe (countries represented were Austria (4 delegates), Belgium (1), Finland (1), Germany (1), Hungary (1), Italy (3), Netherlands (4), Norway (1), Poland (1), Portugal (4), Spain(3), Turkey (3)), 25% from Brazil (11 delegates), 7% from Mexico (3 delegates), 5% from India (2 delegates), 2% from USA (1 delegate).

All participants received a certificate of completion stating the credits accomplished, signed by the Dean of Research and Post-Graduate Program and the Director of the Post-Graduate Program of Management Engineering of the Federal University of Pernambuco.

We applied a questionnaire in order to let participants assess the Summer School. In general, the evaluation was satisfactory and we received many constructive and positive comments on the venue, the organization, the social activity and banquet, the poster sessions and so on. Also, and most importantly, the topics and the lectures received a good evaluation from most students. Some of them were concerned about the lack of free time during daylight to enjoy Boa Viagem Beach ☹. At least, this means that they worked hard!

It is imperative to comment on the closing session, which was the climax of the Summer School. The students organized a presentation at the end of the closing session. In a most pleasant way, they expressed their gratitude to all who contributed to the school and even to the staff of the hotel. Students can be expected to be spontaneous, sincere and humorous in such circumstances and this group excelled in all three aspects much to the delight of all guest lecturers. The highpoint of their

presentation was the communication of the result of their voting for the “best talk award”. First, there was a list of three finalists (Evolutionary Multi-objective Optimization, Decision Deck and Biases in Decision Making). Then, they acclaimed, while drumming on the tables, as the champion “Biases in Decision Making” by Murat Koksalan. A worthy winner!



On the occasion of this MCDA/M Summer School, we organized a parallel event (Seminar of Information and Decision System) held at the Federal University of Pernambuco (UFPE) where the Lecturers gave Plenary Sessions that were open to the general public. We would like to express our gratitude to all Lecturers for this extra effort that helped us greatly to obtain additional financial support for the Summer School.

Our sincere gratitude is due to the Scientific Committee for the constant support to the organizing committee, since the very beginning, and, of course, to all those on the organizing committee. This Summer School would not have been possible without the support of many people. We are also very grateful to our sponsors, namely CAPES, CNPq, FACEPE, IPSID, CDSID, INSID, PRONEX (FACEPE-CNPq) and the International Society on Multiple Criteria Decision Making (supporting the registration with accommodation of 14 students).

Photos and videos of the summer school are on the website (see <http://cdsid.org.br/mc-summer-school2016/photos/>).

We are looking forward to see you all again at the 24rd International Conference on Multiple Criteria Decision Making, Ottawa, Canada! Don't miss it and do encourage others to apply!

Danielle C Morais and *Luciana H Alencar*

4.2 Impressions by Participants of the MCDM Summer School

Due to space constraints, only the impressions of four participants selected on a first-come-first-shown base are presented in full, and for all others only an extract is shown. All impressions are provided at www.cdsid.org.br/mc-summer-school2016/impressions-by-participants.

In full by:

Yue Zhou-Kangas, University of Jyväskylä, Finland: “I could not imagine what I would have missed, if I had not come.” as I told friends I met in Recife, Brazil. Every morning, I prepared myself by walking along the beach, listening to the waves, and letting the warm Atlantic Ocean water touch my feet. I know I am ready for the challenging day of the MCDA/M summer school. The days in the summer school were indeed challenging because we were introduced various topics in MCDA/M field. I gained a good overview of the topics, which consolidates my own research. In the casework, I learnt to work and cooperate with people with a variety of cultural backgrounds. Along with the scientific knowledge, I learnt the stories from the lecturers when they were young researchers (as we are now). The stories continue to encourage me toward my goal of making a difference in MCDA/M field. Outside of the scientific programs, I met people that I can address them as friends now. We went together to explore Recife, ranging from the nature to culture. A part of us will always be associated with Recife and MCDA/M summer school where our friendship has begun. As I told my friends, good-bye until next time.

We are a group of young researchers, who were spoiled by the organizers, lecturers, hotel staff and many locals in Recife. We were provided the best lectures, most fascinating stories, maximized comfortability, best banquet where everyone danced, and most warm hospitality and many other things. The successful summer school has written a new history in MCDM society and by attending the summer school, we attendees made a difference. I recommend MCDA/M summer school to others. I also recommend Recife to people who wants to have a unique experience.

Sonja Rohmer, Wageningen University – Social Sciences, The Netherlands: Back in the Netherlands many people have asked me about my experience at the MCDA/M summer school in Recife, but how is it even possible to put it into words and do all of it justice. So how do I start?

It has been two great weeks in Brazil, 13 renowned lecturers, numerous interesting talks, 2 museums, 1 banquet, many late nights (with countless beers) and 44 inspired minds. But while this gives a great overview over the general program it hardly captures the true spirit of the summer school. We all started with great expectations, each of us having their own objectives in mind, but during these two weeks, filled with knowledge exchange and scientific expertise, we grew together as a group and didn't only meet these expectations but we exceeded them. As part of the program, we got the chance to meet the "legends" in our field and while we got to pick their brilliant minds, listen to stimulating scientific presentations and exchange our views on Brazilian art with them, we also realised that they are talented dancers, showmen and just generally really nice people to have a laugh with.

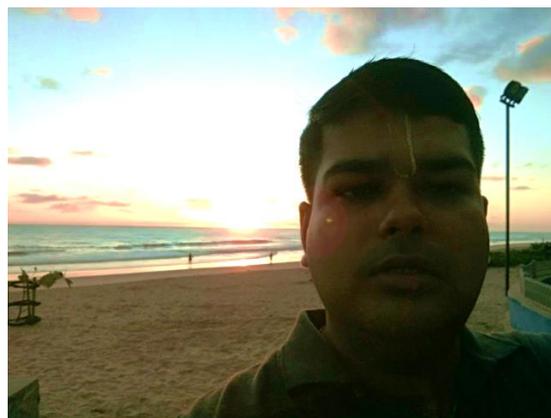


Thank you

However, while the program itself was a challenging and inspiring experience that surely contributed to our scientific development, the heart of this summer school were the people and especially all my fellow young researchers. We came from many different countries, backgrounds and cultures, covering a variety of scientific topics, learned from each other and laughed together. Over these two weeks we became a small MCDM family and built friendships for life. The memories of the summer school will tie us together forever and hopefully many of us will continue to work together for a long time building the future of the MCDM society.

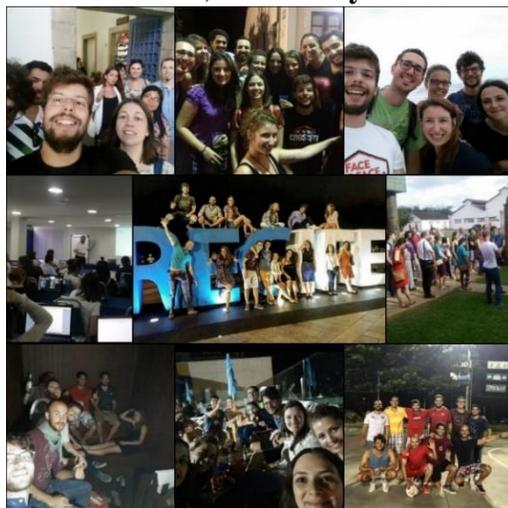
I want to thank all of you for making this stay in Brazil so unforgettable, for the time we shared and the knowledge, skills and experience we gained. It was awesome. Stay in touch and break a leg (or a wrist).

Shekhar Shukla, Indian Institute of Management (IIM), India: I feel blessed to be a part of 12th MCDA/M Summer School in Recife, Brazil. It was a memorable experience in terms of learning, networking and hospitality. The Summer School was well planned in terms of taking us to a broad spectrum of topics in MCDA/M. The best part of the Summer School was presence of almost 50 students from different reputed educational campuses across the globe and presence of Professors, Researchers and Corporates with world-wide repute to deliver sessions based on knowledge dissemination. We were also rewarded with an opportunity to work in Case Groups that was insightful for spirit of teamwork, mutual respect and direct guidance from experts. Apart from these things, there is something more that certainly needs a highlight. *This was the extraordinary hospitality of the organizers and the presence of simplicity and humbleness in the panel of experts that really made an impact in my heart.* Let me talk about each of them one by one. To talk about hospitality,



organizers were so caring and bothered about each participant that I am really out of words to express. They were very proactive to address our concerns and needs. From Day One to Day Last they were in same stance and were very much there for us. Talking about the expert panel, which was surely a group of intellectuals hard to find at one place. They were all simple and humble in their sessions to express the content in most understandable way. They were also very approachable for discussions and addressing puny doubts of budding researchers like us. It was really sweet and welcoming of them. Thank you for all the learning, care and opportunities. After having a jump start from this Summer School, I strongly desire to remain active through my work in domain of MCDA/M. Also, aspire to see my Summer School Friends and Experts in near future. ☺

Pedro Correia, University of Coimbra, Portugal: I applied to attend the MCDA/M Summer



School because I believed that I would build on my knowledge by learning from the best lecturers in the field and by getting to know several young talented researchers. Now I can tell you, my beliefs were fulfilled. In the school, I got the possibility to attend excellent talks, given by outstanding researchers who were not only great communicators, making our learning task easier, but also very sympathetic people outside the classroom. By the way, did I mention that the lecturers also proved to have amazing dancing skills during the banquet?

There is one thing, though, that I could have not imagined before attending the summer school. I could not have imagined that I would meet people that are so interesting, so funny, so different and so equal to each other and with whom I had so many "adventures" in just two weeks, with whom I would actually want to keep in touch, and sincerely try to be friends for the future. I am obviously talking about the group of students. This group of 44 young fellows I will never forget. Thank you MCDM Society, thank you Summer School Organizing Committee for all the knowledge, for this school, and for letting me meet this amazing set of people.

So long, and thanks for all the fish.

Extracts of impressions from...

Jasmin Grabenschweiger, University of Vienna, Austria: “.....Now that I’m back, I can only say it was the best decision we could have made in the first PhD year! Still, let’s try to confirm this by evaluating it a posteriori in an MCDM way, defining first of all the following criteria: participants, scientific program, host country, social program, venue, organization, costs ...”

”...The organizers and lecturers did a great job and what I really liked is that one felt kind of a good personal level to interact with them.....” ”.... So morning sessions were theoretical courses, presented most of the time in an appealing way, while afternoon sessions were primarily dedicated

to our case studies, something that triggered an unexpected wave of motivation and enthusiasm amongst all of us,

”.....In the end with some of them saying goodbye was really hard for my heart – although the planning for saying hello again in (hopefully near) future is already ongoing.”

“I know that such events are often a good occasion for having a good time and establishing good friendships, but I think what made it in our case even better was the spirit and vitality of the Brazilian country. It is so easy there to be open-hearted, free, positive, easy and to just have fun and dance (it’s not possible to not dance in Brazil!).” ”.....Beijinhos, Jasmin. If you don’t know what Saudade is, go to Brazil!....”

Marta Dell'Ovo, Politecnico di Milano, Italy: “It is quite hard for me to explain “my summer school”, but I will try.”

“.....In two weeks I had the opportunity to meet outstanding researchers in our field, to participate to interesting lectures of Professors that were happy to talk with us and to share their knowledge even outside the classroom, to visit amazing places, to dance etc. etc....”

“...I can admit that part of my heart is still in Recife, it was really one of the best experience of my life. I met great people, friends and maybe future colleagues....”

“...I changed my mind about the “research” and about how to be a researcher.....”

“Someone once said “bad decisions make good stories” but in this case I could say “good decisions make better stories”.

Francisco Silva Pinto, University of Lisbon, Portugal: “.... I can highlight 3 different perspectives to look into such experience, and in all of them it was incredible. The first was in learning, the lecturers were not just the best researchers, they were actually very good teachers, even in this perspective in which the bar was set really high, it was exceeded. The second was in working with your peers (yes we had group works!), it turned out to be a great working experience and a good way to apply some of the recently learned knowledge and software. And finally, all the remaining time that we had together, talking, playing, dancing, drinking, swimming, and whatever else I do not ‘recall’. All in all, I (and by this time we) can pretentiously say that we were very lucky to have each other in this experience, but I bet every single Summer School is an amazing experience for all its participants.” “.....Thank you MCDM/A society, organizing committee, lecturers, fellow participants, and all the others involved, for this unforgettable experience....”

Nadya R. Galo, Universidade de São Paulo (São Carlos), Brazil: ”... The Summer School has opened my mind to new avenues in the academic world. Added to this, I made friends from all over the world and I lived personal enriching moments.....”

Marlon Braun, Karlsruhe Institute of Technology – Institute AIFB, Germany: “... Even after doing research in MCDM for nearly five years now, there were so many new concepts, techniques and ideas I have learned during these two weeks. This knowledge will greatly help me in future research endeavors and also in successfully finishing my PhD.....”

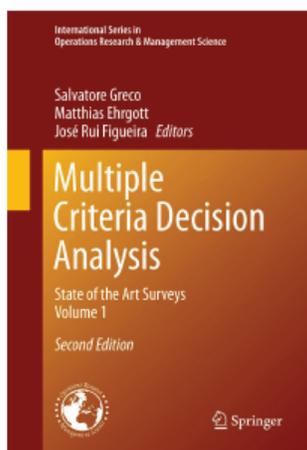
“The memories I will treasure most are those of the new friends I have made and the crazy adventures we have shared. I met all these fellow PhD students for the first time at the summer school, but when returning home, I already had the feeling as if I had known them for an entire lifetime. Connecting with so many like-minded people not only on a professional, but especially on an emotional level was an experience I will never forget. Our group has become a little family over these two weeks and we are already making plans to engage in joint research projects and to visit each other.....”

Go to the MCDA/M Summer School site to see them in full: <http://cidsid.org.br/mc-summer-school2016/impressions-by-participants/>; more to come....

4.3 New edition of the seminal book on MCDA: Multiple Criteria Decision Analysis State of the Art Surveys. S. Greco, M. Ehrgott, J.R. Figueira (Eds.) Series: International Series in Operations Research & Management Science, Vol. 233



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Part I of the book considers the history and current state of MCDA, with surveys that cover the early history of MCDA and an overview that discusses the “pre-theoretical” assumptions of MCDA. Part II then presents the foundations of MCDA, with individual chapters that provide a very exhaustive review of preference modeling, along with a chapter devoted to the axiomatic basis of the different models that multiple criteria preferences. Part III looks at outranking methods, with three chapters that consider the ELECTRE methods, PROMETHEE methods, and a look at the rich literature of other outranking methods.

Part IV, on Multiattribute Utility and Value Theories (MAUT), presents chapters on the fundamentals of this approach, the very well known UTA methods, the Analytic Hierarchy Process (AHP) and its more recent extension, the Analytic Network Process (ANP), as well as a chapter on MACBETH (Measuring Attractiveness by a Categorical Based Evaluation Technique). Part V looks at Non-Classical MCDA Approaches, with chapters on risk and uncertainty in MCDA, the decision rule approach to MCDA, the fuzzy integral approach, the verbal decision methods, and a tentative assessment of the role of fuzzy sets in decision analysis.

Part VI, on Multiobjective Optimization, contains chapters on recent developments of vector

and set optimization, the state of the art in continuous multiobjective programming, multiobjective combinatorial optimization, fuzzy multicriteria optimization, a review of the field of goal programming, interactive methods for solving multiobjective optimization problems, and relationships between MCDA and evolutionary multiobjective optimization (EMO).

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5 New Books/Publications

This section presents a list of papers published in 2015, 2016 or to appear. 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.

5.1 Books

Greco S., Ehrgott M., Figueira J.R.: **Multiple Criteria Decision Analysis – State of the Art Surveys**, 2nd edition, *International Series in Operations Research & Management Science*, 233, Springer New York, 1346 pages, 2016.

Kaliszewski I., Miroforidis I., Podkopaev D.: **Multiple Criteria Decision Making by Multiobjective Optimization - A Toolbox**, *Springer*, <http://www.springer.com/978-3-319-32755-6>, 2016.

5.2 Books chapters

Ehrgott M., Gandibleux X., Przybylski A.: **Exact methods for multi-objective combinatorial optimization**, In S. Greco, M. Ehrgott, J.R. Figueira (ed.), *Multiple Criteria Decision Analysis – State of the Art Surveys*, 817-850, 2016.

Miettinen K., Hakanen J., Podkopaev D.: **Interactive Nonlinear Multiobjective Methods**, *Multiple Criteria Decision Analysis: State of the Art Surveys*, 2nd. Edition, Greco, S., Ehrgott, M., Figueira, J. (eds), , Springer-Verlag, 931-980, 2016.

Paredes-Frigolett H., Gomes L.F.A.M., Retamales J.P.: **Extending agent-based modeling via multicriteria decision analysis**, In: *Joining Complexity Science and Social Simulation for Innovation Policy Agent-based modelling using the SKIN platform*, Ahrweiler, P., Gilbert, N., Pyka, A. (Orgs.), Cambridge Scholars Publishing, 181-205, 2016.

Weistroffer H.R., Li Y.: **Multiple criteria decision analysis software**, Ch 12 In: S Greco, M Ehrgott & JR Figueira (eds), *Multiple Criteria Decision Analysis. State of the Art Surveys*, 1301-41, 2016.

Wiecek M.M., Ehrgott M., Engau A.: **Continuous multiobjective programming**, In S. Greco, M. Ehrgott, J.R. Figueira (ed.), *Multiple Criteria Decision Analysis – State of the Art Surveys*, 739-815, 2016.

5.3 Journal articles

Afful-Dadzie E., Nabareseh S., Oplatková Z.K., Klímek P.: **Model for Assessing Quality of Online Health Information: A Fuzzy VIKOR Based Method**, *Journal of Multi-Criteria Decision Analysis*, 23(1-2):49-62, doi :10.1002/mcda.1558, 2016.

Aringer M., Dörner T., Leuchten N., Johnson S.: **Toward new criteria for systemic lupus erythematosus – a standpoint**, *Lupus*, 25:805-11, 2016.

Byrne T., Santos B., Amer P., Martin-Collado D., Pryce J., Axford M.: **New breeding objectives and selection indexes for the Australian dairy industry**, *Journal of Dairy Science*, forthcoming, 2016.

Cabrera G. G., Ehrgott M., Mason A., Raith A.: **A matheuristic approach to solve the multi-objective beam angle optimisation problem in intensity modulated radiation therapy**, *International Transactions in Operational Research*, DOI:10.1111/itor.12241, 2016.

Cavallo B., D'Apuzzo L., Basile L.: **Weak Consistency for Ensuring Priority Vectors Reliability**, *Journal of Multi-Criteria Decision Analysis*, 23(3-4):126-138, doi :10.1002/mcda.1559, 2016.

Couto A.B.G. do, Gomes L.F.A.M.: **Multi-criteria Web Mining with DRSA**, *Procedia Computer Science*, 91:131-140, 2016.

Cunningham H., Knowles S., Hansen P.: **Bilateral foreign aid: How important is aid effectiveness to people for choosing countries to support?**, *Applied Economics Letters*, published online, 2016.

de Olde E., Moller H., Marchand F. et al: **When experts disagree: The need to rethink indicator selection for assessing sustainability of agriculture**, *Environment, Development and Sustainability*, 1-16, published online, 2016.

Doumpos M., Xidonas P., Xidonas S., Siskos Y.: **Development of a Robust Multicriteria Classification Model for Monitoring the Postoperative Behaviour of Heart Patients**, *Journal of Multi-Criteria Decision Analysis*, 23(1-2):15-27, doi :10.1002/mcda.1547, 2016.

Gomes L.F.A.M., Machado M.A.S., Caldeira A.M., Santos D.J., Nascimento W.J.D. do.: **Time Series Forecasting with Neural Networks and Choquet Integral**, *Procedia Computer Science*, 91:1119-1129, 2016.

Guarneri P., Wiecek M.M.: **Pareto-based negotiation in distributed multidisciplinary design**, *Structural and Multidisciplinary Optimization*, 53(4):657-671, 2016.

Gupta M., Mohanty B. K.: **Attribute Partitioning in Multiple Attribute Decision Making Problems for a Decision with a Purpose – a Fuzzy Approach**, *Journal of Multi-Criteria Decision Analysis*, 23(3-4):160-170, doi :10.1002/mcda.1567, 2016.

Gwynne-Jones D., Iosua E., Stout K.: **Rationing for total hip and knee replacement using the New Zealand Orthopaedic Association (NZOA) score: Effectiveness and comparison with patient reported scores**, *The Journal of Arthroplasty* 31:957-62, 2016.

Hulkower N. D., Neatrou J.: **Deflecting Arrow by Aggregating Rankings of Multiple Correlated Criteria According to Borda**, *Journal of Multi-Criteria Decision Analysis*, 23(3-4):75-86, doi :10.1002/mcda.1568, 2016.

Juszczuk P., Kaliszewski I., Podkopaev D., Shih H.-S.: **Market Collective Wisdom Discovery for Portfolio Investments**, *International Journal of Information and Management Sciences*, 27:87-102, 2016.

Kao C., Steuer R.E.: **Value of Information in Portfolio Selection, with a Taiwan Stock Market Application Illustration**, *European Journal of Operational Research*, 253(2):418-427, 2016.

Kaliszewski I., **On variant selection mechanisms in interactive MCDA - engineering versus reverse engineering**, *Journal of Multi-Criteria Decision Analysis*, 23(1-2), 40-48, 2016.

Kaliszewski I., Kiczkowiak T., Miroforidis J., **Mechanical design, Multiple Criteria Decision Making and Pareto optimality gap**, *Engineering Computations*, 33(3), 876-895, 2016.

Kaliszewski I., Podkopaev D., **Simple Additive Weighting - a metamodel for Multiple Criteria Decision Analysis methods**, *Expert Systems with Applications*, 54:155-161, 2016.

Koksalan M., Tezcaner Ozturk D.: **An Evolutionary Approach to Generalized Biobjective Traveling Salesperson Problem**, *Computers and Operations Research*, doi:10.1016/j.cor.2016.04.027, 2016.

Machado M.A.S., Giesta H.C.P., Gomes L.F.A.M., Caldeira A.M., Santos D.J.: **Profit Maximizing from Energy Consumption with the Choquet-Based Cluster Analysis**, *Procedia Computer Science*, 91:9-18, 2016.

Machado M.A.S., Moreira T.D.R.G., Gomes L.F.A.M., Caldeira A.M., Santos D.J.: **A Fuzzy Logic Application in Virtual Education**, *Procedia Computer Science*, 91:19-26, 2016.

Martin B., Goldsztejn A., Granvilliers L., Jermann C.: **Constraint propagation using dominance in interval Branch & Bound for nonlinear biobjective optimization**, *European Journal of Operational Research*, available online, <http://dx.doi.org/10.1016/j.ejor.2016.05.045>, 2016.

Martin D.M., Hermoso V., Pantus F., Olley J., Linke S., Poff N.L.: **A proposed framework to systematically design and objectively evaluate non-dominated restoration tradeoffs for watershed planning and management**, *Ecological Economics*, 127:146-155, 2016.

Masri H., Ben Abdelaziz F., Alaya H.: **A Recourse Stochastic Goal Programming Approach for the Multi-objective Stochastic Vehicle Routing Problem**, *Journal of Multi-Criteria Decision Analysis*, 23(1-2):3-14, doi :10.1002/mcda.1563, 2016.

Mateus R.J.G., Bana e Costa J.C., Matos P.V.: **Supporting Multicriteria Group Decisions with MACBETH Tools: Selection of Sustainable Brownfield Redevelopment Actions**, *Group Decision and Negotiation*, doi:10.1007/s10726-016-9501-y, 1-27, 2016.

Miettinen K., Ruiz F.: **NAUTILUS Framework: Towards Trade-off-Free Interaction in Multiobjective Optimization**, *Journal of Business Economics*, 86(1):5-21, 2016.

Miettinen K., Hakanen J., Podkopaev D., Steponavice I. (Guest Editors): **Special Issue on Global Optimization with Multiple Objectives**, *Journal of Global Optimization*, 64(1), 2016.

Miloslavsky E., Naden R., Bijlsma J. et al: **Development of a Glucocorticoid Toxicity Index (GTI) using multicriteria decision analysis**, *Annals of the Rheumatic Diseases*, published online, 2016.

Moura F., Cambra P., Gonçalves A.: **Measuring walkability for distinct pedestrian groups with a participatory assessment method: A case study in Lisbon**, *Landscape and Urban Planning*, 157:282-96, 2017.

Mühlbacher A. C., Kaczynski A.: **The Expert Perspective in Treatment of Functional Gastrointestinal Conditions: A Multi-Criteria Decision Analysis Using AHP and BWS**, *Journal of Multi-Criteria Decision Analysis*, 23(3-4):112-125, doi :10.1002/mcda.1562, 2016.

Ogryczak W., Olender P.: **Ordered median problem with demand distribution weights**, *Optimization Letters*, 10(5):1071-1086, doi:10.1007/s11590-015-0990-4, 2016.

Orrin C., Guoqing L.: **Linking Disjoint Supermatrices and Criteria Clusters**, *Journal of Multi-Criteria Decision Analysis*, 23(3-4):139-159, doi :10.1002/mcda.1570, 2016.

Phillips A.E., Walker C.G., Ehrgott M., Ryan D.M., **Integer programming for minimal perturbation problems in university course timetabling**, *Annals of Operations Research*, DOI:10.1007/s10479-015-2094-z, 2016.

Renzi C., Leali F.: **A Multicriteria Decision-Making Application to the Conceptual Design of Mechanical Components**, *Journal of Multi-Criteria Decision Analysis*, 23(3-4):87-111, doi :10.1002/mcda.1569, 2016.

Sarabando P., Dias L., Vetschera R.: **Group Decision Making with Incomplete Information: a dominance and quasi-optimality volume-based approach using Monte-Carlo simulation**, *International Transactions in Operational Research*, online first, DOI: 10.1111/itor.12315, 2016.

Saracoglu B.O.: **A Qualitative Multi-Attribute Model for the Selection of the Private Hydropower Plant Investments in Turkey: By Foundation of the Search Results Clustering Engine (Carrot2), Hydropower Plant Clustering, DEXi and DEXiTree**, *Journal of Industrial Engineering and Management*, DOI: <http://dx.doi.org/10.3926/jiem.1142>, 9(1):152-178, 2016.

Scholz M.: **A Note on the Power of Multiattribute One-switch Utility Functions**, *Journal of Multi-Criteria Decision Analysis*, 23(1-2):63-71, doi :10.1002/mcda.1560, 2016.

Shao L., Ehrgott M.: **Discrete representation of non-dominated sets in multi-objective linear programming**, *European Journal of Operational Research*, 255(3):687-698, 2016.

Sobrie O., Lazouni M. El A., Mahmoudi S., Mousseau V., Pirlot M.: **A new decision support model for preanesthetic evaluation**, *Computer Methods and Programs in Biomedicine*, 133:183-193, doi: 10.1016/j.cmpb.2016.05.021, 2016.

Steuer R. E., Hirschberger M., Deb K.: **Extracting from the Relaxed for Large-Scale Semi-Continuous Variable Nondominated Frontiers**, *Journal of Global Optimization*, 64:33-48, 2016.

Tezcaner Ozturk D., Koksalan M.: **An Interactive Approach for Biobjective Integer Programs under Quasiconvex Preference Functions**, *Annals of Operations Research*, doi: 10.1007/s10479-016-2149-9, 2016.

Vargas-Santos A., Taylor W., Neogi T.: **Gout classification criteria: Update and implications**, *Current Rheumatology Reports*, 18:1-10, 2016.

Vetschera R.: **Deriving rankings from incomplete preference information: A comparison of different approaches**, *European Journal of Operational Research*, online first, DOI: 10.1016/j.ejor.2016.08.031, 2016.

Wanishayakorn T., Ngorsuraches S.: **Benefit-Risk Assessment of Statins (Lipid Lowering Agents): A Multi-Criteria Decision Analysis**, *Journal of Multi-Criteria Decision Analysis*, 23(1-2):28-39, doi :10.1002/mcda.1554, 2016.

5.4 Conference proceedings

Al-Ismaïli S., Li M., Shen J.: **Cloud computing adoption decision modelling for SMEs: From the PAPRIKA perspective**, proceedings of the *4th International Conference on Frontier Computing*, In: Hung, N Yen & K-C Li (eds), *Frontier Computing: Theory, Technologies and Applications*, Lecture Notes in Electrical Engineering, 375:597-615, 2016.

Basseur M., Derbel B., Goëffon A., Liefoghe A., **Experiments on greedy and local search heuristics for d-dimensional hypervolume subset selection**, *Genetic and Evolutionary Computation Conference (GECCO 2016)*, Denver, USA, 2016.

Chugh T., Sindhya K., Miettinen K., Hakanen J., Jin Y.: **On Constraint Handling in Surrogate-Assisted Evolutionary Many-Objective Optimization**, in *14th International Conference on Parallel Problem Solving from Nature*, to appear, 2016.

Couto A.B.G. do, Gomes L.F.A.M.: **The Dominance-Based Rough Set Approach as a Business Analytical Tool**, In *6th International Conference on Computers Communications and Control (ICCCC)*, Oradea, Romania, 1:217-224, 2016.

Derbel B., Liefoghe A., Zhang Q., Aguirre H., Tanaka K.: **Multi-objective local search based on decomposition**, *International Conference on Parallel Problem Solving from Nature (PPSN 2016)*, Denver, USA, Lecture Notes in Computer Science, 2016.

Hartikainen M., Eyvindson K., Miettinen K., Kangas A., **Data-Based Forest Management with Uncertainties and Multiple Objectives**, *Second International Workshop on Machine Learning, Optimization and Big Data*, to appear, 2016.

Liefoghe A., Derbel B.: **A correlation analysis of set quality indicator values in multiobjective optimization**, *Genetic and Evolutionary Computation Conference (GECCO 2016)*, Denver, USA, 2016.

Ogryczak W., Hurkala J.: **Determining OWA Operator Weights by Maximum Deviation Minimization**, in *Pattern Recognition and Machine Intelligence: 6th International Conference, PReMI 2015*, Warsaw, Poland, Kryszkiewicz M., Bandyopadhyay S., Rybinski H., Pal K. S. (eds), Springer International Publishing, 335-344, doi:10.1007/978-3-319-19941-2_32, 2015.

Ojalehto V., Podkopaev D., Miettinen K.: **Towards Automatic Testing of Reference Point Based Interactive Methods**, *14th International Conference on Parallel Problem Solving from Nature*, to appear, 2016.

5.5 Reports and unrefereed magazine article

Chugh T., Jin Y., Miettinen K., Hakanen J., Sindhya K., **K-RVEA: a Kriging-assisted Evolutionary Algorithm for Many-Objective Optimization**, *Reports of the Department of Mathematical Information Technology, Series B*, Scientific Computing, No. B 2/2016, University of Jyväskylä, Jyväskylä, 2016.

Coleman A.: **What do New Zealanders want from their retirement income scheme?**, *EcoNZ@Otago*, 36:3-5, 2016.

Fonseca C. M., Antunes C. A., Lacour R., Miettinen K., Reed P. M., Tusar T.: **Visualization in Multiobjective Optimization**, in *"Understanding Complexity in Multiobjective Optimization"*, *Report from Dagstuhl Seminar 15031*, Edited by S. Greco, K. Klamroth, J.D. Knowles, G. Rudolph, Dagstuhl, 129-139, 2015.

6 Imprints

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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 February issue is January 20th and the issue is intended to be published “at the beginning of February”. Usually the deadline for the September issue is 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).