

International Society on Multiple Criteria Decision Making



E-News • 2012 • Issue 1 (February)



Contents

Letter from the president	1
To the memory of Professor Yoshikazu Sawaragi	4
1 Society news	5
1.1 Traditions of the International Society on MCDM related to its conferences	5
1.2 New newsletter editorial team.....	6
1.3 The 22nd International Conference on Multiple Criteria Decision Making, June 17-21, 2013, Málaga, Spain	8
1.4 MCDA/M Summer School 2013, Hamburg, Germany	10
2 Upcoming Events and Call for Papers	11
2.1 Advances in Operations Research Special Issue on Deterministic and Stochastic Variational Principles and Applications.....	11
2.2 EMO 2013, Sheffield UK, March 19-22, 2013.....	13
2.3 76 th Euro Working Group Meeting Multicriteria Decision Aiding.....	14
2.4 10th EUROPT Workshop on Advances in Continuous Optimization	15
3 Past Conference, Workshops, and other News	18
3.1 A Report on the activities of the INFORMS MCDM Section at the INFORMS Annual meeting in Charlotte, North Carolina (USA), November 13-16, 2011.	18
3.2 74 th meeting of the European Working Group on MCDA.....	20
3.3 Dagstuhl Seminar on Learning in multiobjective optimization	22
3.4 Workshop of the German Working Group on Decision Theory and Applications.....	26
4 New Books/Publication	27
4.1 Books and book chapters	27
4.2 Journal papers.....	27
4.3 Conference proceedings	30
4.4 Research Reports.....	31
5 Research Team Presentation: MO Group Auckland.....	32
5.1 About the research group	32
5.2 Members.....	33
5.3 Ten important publications related to MCDM.....	34
5.4 Software developed at the research group	35
5.5 Photo of the MO Group Auckland.....	36
5.6 Contact details	36
6 List of members with invalid email address	37
7 Imprints.....	40

Letter from the president

Dear Members of the International Society on Multiple Criteria Decision Making,

First of all, I wish all of you a most rewarding and fulfilling New Year 2012!

This is the first newsletter of the Society with **Johannes Siebert as the Newsletter Editor**. We have added new types of contents in the newsletter and welcome your comments and feedback. I am very happy that we have managed to establish an **editorial team** to help Johannes in preparing material for the newsletter: Karthik Sindhya is responsible for collecting information on research groups working on MCDM, Lucie Galand for recent publications and Salvatore Corrente for events. I wish the whole editorial team the best of success in facing your new challenges and thank you for your valuable contribution. If any member of our Society is interested in joining the editorial team with some area of responsibility, please, do not hesitate to contact me at president@mcdmsociety.org. I also want to warmly thank Martin-Josef Geiger for all his efforts as a previous newsletter editor who served the Society for two terms, that is, eight years!



The 21st International Conference on Multiple Criteria Decision Making attracted a record number of participants last June. I hope that similar interest and active participation will continue in the **22nd International Conference** which will take place in **Malaga, Spain, on June 17-21, 2013**. Please, write the dates already down! You can follow how the preparations are making progress at the conference website <http://www.uma.es/mcdm2013/>. Francisco Ruiz, the Secretary of our Society, will be the chair of the MCDM2013 conference. Some information about the conference is already available in this newsletter. In 2013, a **Summer School on MCDM** will also be organized. Martin-Josef Geiger will be in charge of the summer school and it will be organized in Germany. Preliminary information is already available in this newsletter. Please also follow the summer school website <http://www2.hsu-hh.de/logistik/summer-school-2013/>.

Remember that the **MCDM Doctoral Dissertation Award** will be given in the MCDM2013 conference. This award was initiated in the MCDM2011 conference and I encourage talented doctoral students and their advisors to keep this award in mind. Call for applications with further details will be opened during the second half of this year.

Our Society has already had 21 conferences and they involve various **good practices and traditions** that we wish also the future conferences to cherish. The traditions have now been collected at the Society's website at <http://www.mcdmsociety.org/conf.html#Traditions> so that anyone interested in such values can find them easily. Thereupon you find them in the next chapter of this newsletter.

NB: It is important that you **keep your contact information up to date**. Your email address is the most important piece of information that should be up to date. Otherwise, you will not get information of newsletters published, you will not be able to vote in the elections of the Society,

etc. You can update your contact information at <http://mcdmsociety.org/members/> by typing in your email address and password. If you have forgotten your password, please, click the "Forgot your password" link, type in your email address and you'll get instructions by mail of how to set your password. If you face any problems in updating your data, e.g. your email address has changed, please, do not hesitate to contact the Secretary at secretary@mcdmsociety.org and he will help you. He can change your email address so that you can update the rest of the data yourself or he can update your data. Please note that email addresses are no longer visible at the public membership database <http://mcdmsociety.org/members/mcdmdir.php> because of spam problems. To see email addresses, you need to log on at <http://mcdmsociety.org/members/> as described above. Our Secretary has collected a list of **invalid email addresses** at http://www.mcdmsociety.org/Invalid_email_list.pdf. The list is also at the end of this newsletter. If you know a valid email address to any of the people in the list, please, inform the Secretary as soon as possible. As said, it is vital that our records are up to date.

Our Society can **endorse specialized MCDM related conferences**. If you are organizing such a conference and are interested in your conference being endorsed by our Society, please, follow the instructions at <http://www.mcdmsociety.org/conf.html#Endconf>. An example of conferences endorsed by the Society is the IPMU conference of which you find information on the website <http://www.ipmu2012.unict.it/>.

Even though we do not have any conference of our own society this year, there will be many conferences, workshops and seminars that are related to MCDM. Among others, the MOPGP conference (<http://web2.uwindsor.ca/cors-mopgp2012/cors2012.htm>) will take place in Niagara Falls, Canada in June and the EURO2012 conference (<http://www.euro-2012.lt>) in Vilnius, Lithuania in July will have at least fifteen sessions in the multiobjective optimization stream not to mention other MCDM related streams and sessions in the conference. Furthermore, the ISMP2012 conference (<http://www.ismp2012.org/>) in Berlin, Germany in August will have a stream devoted to multiobjective optimization. In addition, the ECCO2012 conference (<http://www.eccoxxv.org/>) in Antalya, Turkey in April welcomes contributions related to MCDM and combinatorial optimization. Among workshops where multiobjective optimization is included will be the EUROPT workshop (<http://www.mii.lt/EUROPT-2012/>) in Siauliai, Lithuania in July and the WCO'2012 workshop (<http://www.fedcsis.org/wco>) in Wroclaw, Poland in September. Furthermore, there will be an MCDM stream in the INFORMS Meeting (<http://meetings2.informs.org/phoenix2012/>) in October in Phoenix, Arizona, USA. This list is by no means comprehensive (some further calls for papers can be found in this newsletter) but shows that there are plenty of interesting scientific events coming.

Sad news from Japan have reached us: Professor Yoshikazu Sawaragi has passed away. Please, read the obituary written by Hirotaka Nakayama in this newsletter.

Remember that the officers of our Society can easily be contacted at the following email addresses:

president@mcdmsociety.org,

president-elect@mcdmsociety.org,

secretary@mcdmsociety.org,

mcdm-award@mcdmsociety.org and newsletter@mcdmsociety.org.

The whole executive committee is listed at <http://www.mcdmsociety.org/intro.html#Executive>.

Suggestions of how to develop the newsletter and the Society's activities further are most welcome! Let us stay in touch!

Kaisa Miettinen

President of the International Society on MCDM

president@mcdmsociety.org

P.S. If you are interested in organizing a session on multiobjective optimization in EURO2012 or ECCO2012 or a talk on interactive multiobjective optimization in ISMP2012, please, contact me.

To the memory of Professor Yoshikazu Sawaragi

It is deeply sad for me to inform the community of MCDM that Professor Yoshikazu Sawaragi passed away at the age of 94 in Kyoto, Japan, 22 October, 2011. He organized 7-th International Conference on Multiple Criteria Decision Making, Kyoto, 1986. His photograph can be seen in the book “Multiple Criteria Decision Making –From Early History to the 21st Century–”, by Koksalan, Wallenius and Zionts, World Scientific, 2011 (p.67).

He made tremendous contributions to the field of control engineering and system sciences, in particular as a worldwide distinguished leader (e.g., IFAC President from 1978 to 1981, IFAC advisor since 1984, IFAC fellow in 2005, President of Association of Automatic Control Engineers, Japan (presently, Institute of Systems, Control and Information Engineers) from 1971 to 1976, President of Society of Instrument of Control Engineers from 1987 to 1989; In 1969 he became Member of Science Council of Japan).

He became a full professor of Faculty of Engineering, Kyoto University in 1950. He played a major role to launch a new Department of Applied Mathematics and Physics, Faculty of Engineering, Kyoto University in 1959 to educate students in new areas of applied mathematics, control theory, computer, operations research, and applied physics. After the retirement of Kyoto University, he established the Japan Institute of Systems Research (JISR) in 1980 to play a role as a bridge between academia and industry. Especially, he started a joint program between JISR and IIASA in 1987 on the Development of interactive modeling and decision support systems.

For his contributions in Systems and Control Engineering, he received from the Japanese Government the Medal with Purple Ribbon in 1980, and the Second Class Order of Sacred Treasure in 1988. Furthermore, he received Kyoto Prefecture Culture Achievement Award in 1994.

He loved the Japanese word “shinayaka” which literally means soft and hard (or, flexible and robust). There is no English word corresponding to this self-contradictory word at a glance. The idea of “shinayaka” seems to be originated from the oriental (in particular, Japanese) philosophy. Non-Japanese people can guess the meaning from an allegory that branches of willow are never broken even by strong wind and just swing with it. He advocated that systems engineering should be “shinayaka”. To this end, he insisted the importance of harmonized collaboration of human beings and computers. He kept a close observation on human beings. He named his last institute (NPO) “Shinayaka” Systems Engineering. MCDM should play an important role along this approach.

Hiroataka Nakayama

Professor Konan University

1 Society news

1.1 *Traditions of the International Society on MCDM related to its conferences*

Below, you can find information about the traditions of the International Conferences on Multiple Criteria Decision Making. This information should be taken into account by conference organizers (and those planning proposals to organize conferences in the series).

- Executive Committee of the International Society on MCDM makes the decision of the organizer/location of conferences based on proposals made according to the instructions given by the President of the Society. Typically, the meeting of the executive committee takes place during the previous conference.
- The conference lasts roughly five days including a half-day outing at the middle of the conference week and a banquet dinner (typically on Thursday evening). (There may be a get-together event before the actual conference.)
- The intention of the outing is to share information about the culture and traditions of the hosting country/region and enable free discussions among the participants.
- The society has three awards (since 1992) and the Awards Committee decides which of them are delivered at each conference.
- The names of the awardees are announced only in the banquet and according to the bylaws of the Society the awardees are expected to give talks the following day.
- Plaques for awardees have so far been prepared by Prof. Gwo-Hshiung Tzeng (with very modest expenses that the conference organizer must cover.) Besides the plaque for the awardees, two more plaques of the Society are presented: the MCDM Conference Chairmanship Award to the conference organizer and the MCDM Presidential Service Award to the President at the end of his/her four-year term.
- The banquet dinner can nicely demonstrate the food culture of the hosting country and some nice program reflecting the local culture is welcome.
- The society has a banner (established before the society, in the times of a special interest group). The organizer of the previous conference is responsible for taking it to the following conference and updating it.
- The conference organizers should use all possible means to keep the registration fee and other costs low and support those in need of financial support.
- Typically, some plenary speakers are invited and covering their travel costs (at least partly) is desirable.
- High scientific quality should be aimed at in all possible meanings in the scientific program. The number of parallel sessions should be limited. Attention should be paid to reaching out to companies/industry to build a bridge between academia and industry/applications.
- Proceedings are published after the conference. Recently, the format of publishing special issues of selected journals has been favored.
- So far, acceptance of presentations has been based on short abstracts.
- Book of abstracts must be given to all conference participants. In addition, the registration fee should include access to outing, banquet dinner, refreshments and cold or warm lunches. In many conferences, some small souvenir and a conference bag have also been included in the fee.

- For many years, Wiley has sponsored a Wiley Practice Prize for the best paper describing a real-life application of multiple criteria decision making presented at the International Conference on Multiple Criteria Decision Making.
- In 2011, a doctoral dissertation award was established based on the decision of the executive committee. This new tradition will continue as long as the executive committee so decides.
- Conference organizers must pay the society a levy of at least USD 25 per each paying conference participant.
- The conference organizer is responsible for funding the conference and, unfortunately, the society cannot cover possible losses.
- In further matters and questions related organizing conferences of the International Society on MCDM, the President, the Secretary and the Executive Committee are happy to help.

1.2 New newsletter editorial team

Martin Geiger (Bundeswehr Universität Hamburg) has served for eight years as the newsletter editor. Instead of replacing him only with one successor a Newsletter editorial team was set up. The responsible head of this team is Johannes Siebert (University of Bayreuth). Johannes is postdoc at the University of Bayreuth supervised by Professor Jörg Schlächtermann. His PhD dealt with MAUT/MAVT and now his research interests are robust Ordinal Regression, Dominance-based Rough Set Approach, Value-focused Thinking and Purchasing in Supply Chain Management. Karthik Sindhya is a postdoctoral researcher at the Department of Mathematical Information Technology, University of Jyväskylä, Finland in the Industrial Optimization group headed by Prof. Kaisa Miettinen. His research interests are in the area of evolutionary multi-objective optimization, MCDM, hybrid algorithms and psychology and decision making.



Lucie Galand, Sindhya Karthik, Johannes Siebert and Salvatore Corrente.

Lucie Galand is Assistant Professor at the University Paris Dauphine in the research team "Decision" headed by Daniel Vanderpooten. Her research interests mainly regard determination of specific compromise solutions in combinatorial decision problems (multiobjective optimization, decision under uncertainty,...). Salvatore Corrente is a PhD student at the Department of Economics and Business of University of Catania supervised by Professor Salvatore Greco. His research interests regard decision theory and particularly MAUT, outranking methods and Robust Ordinal Regression.



Ask not what the newsletter
can do for you,
Ask what you can do for the
newsletter.

The whole new team is highly motivated to create an added value for the members of the society. But the main source of an interesting newsletter is an active community with members contributing content. You could use the newsletter to inform more than 1.700 colleagues about what you are doing. In every issue a section “New Books / Publications” will be included. Please send your publication information regarding your MCDM related work to Lucie (lucie.galand@dauphine.fr). Another opportunity for you is to introduce your research group to the members of the society. Please contact Karthik, (karthik.sindhya@jyu.fi) if you are interested in doing so. Also in every

issue the section Call for Papers will be included. The past has shown that this was quite efficient to increase the number of submissions. In these matters, please contact Johannes (newsletter@mcdmsociety.org). Another opportunity for you is to write a conference report to raise interest in the topic of this conference and raise interest for the next conference in the series. Please contact Salvatore (salvatore.corrente@unict.it) if you wish to share information about past conferences and seminars related to MCDM Thereupon new sections will be established in the next issues. One section is going to be “Anecdotes” in MCDM. The idea is to provide interesting stories which could be used in the lectures. If you want to share your stories, please contact Johannes. Another idea is to give members the opportunity to find colleagues for cooperation. If you wish to present yourself and the problem you would like to work on. Please contact Karthik. We invite you to propose other sections, please send your ideas to Johannes (newsletter@mcdmsociety.org).

The newsletter is going to be published twice a year: One issue in January/February and one in August/September. The deadline for contributions for the next newsletter is the **20th of August 2012**.

1.3 *The 22nd International Conference on Multiple Criteria Decision Making, June 17-21, 2013, Málaga, Spain*



¡Hola, amigos!

Dear colleagues and friends. As you probably know, the 22nd International Conference on Multiple Criteria Decision Making, MCDM2013, will be held in Málaga (Spain) from June 17 to June 21, 2013. Málaga is located in Spain's southern region called Andalucía, and it is bathed by the Mediterranean Sea. With a population of over 600,000, its whole metropolitan area gathers nearly 900,000 inhabitants. Its strategic geographical situation, 150 kilometers east from the Strait of Gibraltar, has attracted the main Mediterranean cultures through the centuries. Founded by the Phoenicians in the VIII century B.C., Carthaginians, Romans, Byzantines, Visigoths and Arabs lived and left their legacies in our city before it joined the Spanish crown by the end of the XV century.



The weather in Málaga during the month of June is very pleasant, with average temperatures ranging from 17° C minimum and 27° C maximum, and with a very low probability of rain. The International Málaga-Costa del Sol airport offers direct links with over 60 destinations worldwide, and many more via Madrid or Barcelona. On the other hand, the modern high speed train service provides fast and convenient links with the main cities of Spain. An outstanding road infrastructure and the harbor, with a continuously growing cruise traffic, complete the connections network of the city.

The venue of the conference will be the Faculty of Economy and Business Administration of the University of Málaga. It is located next to the city centre, within walking distance from the main hotels of the conference. The Faculty is equipped with enough rooms to hold the parallel sessions and a larger auditorium for the plenary sessions. Lunches and coffee breaks will be served in the main hall.



The local organizing committee will be formed by my colleagues J. M. Cabello, M. Luque, O. D. Marcenaro, B. Rodríguez, A. B. Ruiz, and R. Saborido, while the program committee is co-chaired by Profs. R. Caballero and C. Romero.

The social program will provide the participants with an overview of our traditions, culture and gastronomy. We are planning to welcome you with a typical “moraga” (tasting our varied fish offer) by the seaside, and to carry out a visit around the main monumental part of the city and have a drink at a traditional cellar on Wednesday evening. The gala dinner will be held outdoors. We also expect to show you some Flamenco dancing performance.



Last but not least, don’t forget that Málaga is the birthplace of the worldwide famous painter Pablo Picasso. During your stay, you can plan to visit the Picasso Museum, and Picasso’s birth place, or some of the other museums that you can find in our city, like the Carmen Thyssen Museum or the Automobile Museum.

We will be delighted to welcome you in Málaga in June 2013 for the MCDM2013 Conference. We will do our bests to host a memorable conference for all the colleagues who decide to visit us. ¡Nos vemos en Málaga!

Francisco Ruiz.

General Chair.

Contact:

email: mcdm2013@uma.es

webpage: www.uma.es/mcdm2013

Address: Dpt. Applied Economics (Mathematics). Calle Ejido, 6. 29071-Málaga. Spain.

Phone: +34 952131167

Facebook group. MCDM2013 (www.facebook.com/groups/mcdm2013)

Twitter: @MCDM2013

1.4 MCDA/M Summer School 2013, Hamburg, Germany

- A first announcement -

Dear friends and colleagues,

this is the first announcement of the MCDA/M Summer School, who will be held in the summer of 2013 at the Helmut-Schmidt-University (HSU), Hamburg, Germany. It is a, if not *the* joint event of the International Society on Multiple Criteria Decision Making and the EURO Working Group on Multicriteria Decision Aiding.

Despite the fact that there is still some time until we kick off the event, we already would like to draw your attention to this meeting of young, mostly PhD-students, right now. The Summer School has a rich tradition, which in 2013 will go back for an amazing number of 30 years! Many of us who are now more 'senior' in the field attended at one time, and recall the benefits this school brought at an early stage of an academic career.

Bringing it to the city of Hamburg, Germany, will allow us to welcome you in a beautiful place, which is worth visiting not only for the summer school. Nevertheless, a strong academic two-week-program, covering the broad field of MCDA/M best possible, will be the foremost focus of most participants. Our aim here at HSU is to provide an excellent scientific environment at low costs. This implies that all registration fees collected will go back to the participants in some form (teaching material, lecturers, lunches, social program, etc.).

Most probably, we will organize the summer school from July 22nd to August 2nd, with a final confirmation pending.

A website has been set up under

<http://logistik.hsu-hh.de/MCDAM-2013>

Here, we are going to post all details on the program, the venue, the registration procedure, the dates, etc.

In the meantime, I remain, sincerely yours,

Martin Josef Geiger

m.j.geiger@hsu-hh.de



2 Upcoming Events and Call for Papers

2.1 *Advances in Operations Research Special Issue on Deterministic and Stochastic Variational Principles and Applications*

Call for Papers

Variational methods are important tools for deriving optimality conditions and corresponding algorithms for solving optimization problems. Ekeland's variational principle is a deep assertion about the existence of an exact solution of a perturbed optimization problem in a neighborhood of an approximate solution of the original problem. The aim of this special issue is to discuss new variational principles from the theoretical as well as computational point of view. Furthermore, we are interested in applications of the variational methods for deterministic and stochastic models, especially in approximation theory and optimal control. In this context recent advances concerning variational inequalities, regularization methods and inverse problems will be discussed.

We invite investigators to contribute original research articles as well as review articles that will stimulate the continuing efforts to understand the importance of variational methods in optimization and stochastics. We are particularly interested in articles describing new developments on the field of deterministic and stochastic variational principles including applications in mathematics, economics and physics.

Potential topics include, but not limited to:

- Minimal point theorems and variational principles
- Variational inequalities, regularization methods, inverse problems
- Optimal control in the deterministic as well as stochastic case, maximum principles
- Lagrange multiplier rules, Duality theory
- Approximation theory, Locational analysis.

Before submission, authors should carefully read over the journal's Author Guidelines, which are located at

<http://www.hindawi.com/journals/jop/guidelines.html>.

Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/> according to the following timetable:

Manuscript Due July 6, 2012

First Round of Reviews September 28, 2012

Publication Date November 23, 2013

Lead Guest Editor

Christiane Tammer, Institute of Mathematics, Martin-Luther-University Halle-Wittenberg, 06099 Halle, Germany; christiane.tammer@mathematik.uni-halle.de

Guest Editors

Wilfried Grecksch, Institute of Mathematics, Martin-Luther-University Halle-Wittenberg, 06099 Halle, Germany; wilfried.grecksch@mathematik.uni-halle.de

Akhtar A. Khan, Center for Applied and Computational Mathematics, School of Mathematical Sciences, Rochester Institute of Technology, 85 Lomb Memorial Drive, Rochester, New York, 14623, USA; aaksma@rit.edu

Hannelore Lisei, Babeş-Bolyai University in Cluj-Napoca, Str. Kogalniceanu 1
400084 Cluj-Napoca, Romania, hanne@math.ubbcluj.ro

2.2 EMO 2013, Sheffield UK, March 19-22, 2013



Preliminary Conference Announcement

The 7th International Conference on Evolutionary Multi-Criterion Optimization (EMO 2013) will be hosted in Sheffield, UK, from 19-22 March 2013. EMO 2013 aims to build on the success of the 6th meeting in Ouro Preto, Brazil, in bringing together the EMO and multiple criteria decision making (MCDM) communities, and will also stimulate a new focus on the application of EMO and MCDM research to help solve real problems in government, business and industry.

The conference general chairs are Robin Purshouse and Peter Fleming (University of Sheffield, UK) and Carlos Fonseca (University of Coimbra, Portugal). The MCDM track chair is Salvatore Greco (University of Catania, Italy).

The conference will include:

Core EMO track

Full papers are invited on novel aspects of EMO theory and methodology.

MCDM track

Full papers are also 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.

Real applications track

Papers are invited from both within and outside the academy on real-world problems in government, business, industry and interdisciplinary sciences, whose solutions have benefited from the recent application of EMO or MCDM methods.

Important information

Please check the conference website for forthcoming information on submission dates and requirements: www.shef.ac.uk/emo2013

You can contact the conference organising team by email: emo2013@shef.ac.uk or twitter: @emo2013_uk.

EMO Steering Committee

Carlos A. Coello Coello, CINVESTAV-IPN Mexico ❖ David Corne, Heriot-Watt University UK ❖ Kalyanmoy Deb, IIT-Kanpur India ❖ Peter J. Fleming, University of Sheffield UK ❖ Carlos M. Fonseca, University of Coimbra Portugal ❖ Hisao Ishibuchi, Osaka Prefecture University Japan ❖ Joshua D. Knowles, University of Manchester UK ❖ Kaisa Miettinen, University of Jyväskylä Finland ❖ J. David Schaffer, Phillips Research USA ❖ Lothar Thiele, ETH Zürich Switzerland ❖ Eckart Zitzler, PH Bern Switzerland.

2.3 76th Euro Working Group Meeting Multicriteria Decision Aiding



13th - 15th September 2012

University of Portsmouth, United Kingdom

Chair: Alessio Ishizaka



MCDA 76 is a workshop of the EURO Working Group for Multi-Criteria Decision Aiding. We are honoured to invite you to the 76th meeting of the European Working Group on MCDA.

Topic: "MCDA in maritime, land and air transport management"

All contributions of multiple criteria decision aiding, and in particular those relative to the theme of the meeting, are welcomed. Presentations and communications can be made in any of the official languages of the group, i.e. English and French. Authors are invited to speak in one of these two languages and provide projected documents in the other.

Conference attendance is free but registration is required. More information is on the website.

Local organising committee

(in alphabetical order)

- Alessio Ishizaka (Chair)
- Ashraf Labib
- Dimos Loukas
- Dylan Jones
- Gary Whitley
- Ian Stevens
- Jolanta Poplawska
- Jana Ries
- Zhougeng Lin



Contact Us

University of Portsmouth
Portsmouth Business School
Richmond Building
Portland Street
Portsmouth, PO1 3DE
United Kingdom
www.mcda76.port.ac.uk/
mcda76@port.ac.uk

2.4 10th EUROPT Workshop on Advances in Continuous Optimization

=====
 First Call for Abstracts of EUROPT-2012
 =====

Dear Colleagues,

the Organizers of the 10th EUROPT Workshop on Advances in Continuous Optimization (EUROPT-2012) have a pleasure inviting you to take part in this workshop to be held in Siauliai, Lithuania on 5-7 July, 2012, <http://www.mii.lt/EUROPT-2012>. We welcome abstracts related to any aspects of continuous optimization, in particular, related to the following topics:

Topics

=====

The programme of our Workshop consists of tutorials, invited and contributed papers. We encourage those interested in e.g. the following topics to participate:

- convex optimization and generalized convexity;
- local nonlinear optimization;
- global nonlinear optimization;
- optimal control -- theory and applications;
- multiobjective optimization;
- conic optimization and semidefinite programming;
- semiinfinite optimization;
- robust optimization;
- stochastic optimization;
- large-scale methods in global search;
- optimization in data mining;
- data visualization for optimal decisions;
- applications of continuous optimization to combinatorial problems;
- optimization in industry, business and finance;
- supply chain management;
- analysis and engineering of algorithms;
- software development.

Abstracts must be written in English and contain no more than 600 characters (no formulas or mathematical notations are allowed). Each attendee is allowed to present ONE paper at the conference. To submit an abstract, use the abstract submission system of EURO-Online at <http://www.euro-online.org/conf/europt2012/?page=welcome>.

Location and Venue

=====

The workshop will be held in the Siauliai city (<http://www.maps.lt/map>), located about 250 km from Vilnius. Siauliai is the capital of Northern Lithuania having old historical traditions. Livonian Order Chronicles describe the battle of Saule between ancient Lithuanians and crusaders that took place not far from Shiauliai and later on gave the name for the city.

The Workshop will be hosted by the Siauliai University. The registration will take place in the Faculty of Mathematics and Informatics (P.Visinskio st. 19, Siauliai). The Sessions will take place in the Library of Siauliai University (Vytauto st. 84,Siauliai).

Invited Speakers

=====

Prof. Boris T. Polyak (Institute of Control Problems, Moscow, Russia)

Prof. Adilson Xavier (University Federal Rio de Janeiro, Rio de Janeiro, Brasil)

Other speakers will be announced later.

Deadlines:

=====

- Deadline for abstract submission: April 30, 2012.
- Notification of acceptance / rejection: May 15, 2012.
- Deadline for early registration: May 25, 2012.
- Workshop: July 5-7, 2012

Registration fee:

=====

	till May 25, 2012	after May 25, 2012
For regular participants	160 Eur	190 Eur
For students (Phd, Master)	70 Eur	90 Eur

Conference fee includes a get-together party, conference dinner, coffee breaks, participant's package, volume of abstracts, participation in the sessions and tutorials.

Travel

=====

The participants who wish will be transferred from Vilnius to Siauliai and back to Vilnius by bus (about 3 hours). The bus departs from Vilnius on July 4, at 18:00, and comes back from Siauliai on July 7, at 12:00. Vilnius (<http://www.vilnius.sav.lt>), the capital of Lithuania, is directly connected by plane and other means of transport with many cities in Europe.

Accommodation

=====

We have reserved quotas of rooms in several hotels close to the meeting place. The list of hotels will be published later.

Social Programme

=====

The social program of the Conference includes

- Welcome reception (Botanical Garden of Siauliai University), July 5, 2012;
- Farewell Party (restaurant: "Smaku smakas"), July 6, 2012;
- Excursion to the Hill of Croisses , July 7, 2012;

Organizing institutions

=====

- EURO Working Group on Continuous Optimization (EUROPT);

- Lithuanian Operational Research Society (LitORS);
- Siauliai University, Siauliai, Lithuania;
- Vilnius University Institute of Mathematics and Informatics, Vilnius, Lithuania.

Co-Organizing Institutions

=====

- Kaunas University of Technology, Lithuania;
- Vilnius Gediminas Technical University, Lithuania.

International Programme Committee

=====

Mirjam Duer (University of Trier, Germany) - Chair
 Julius Zilinskas (Vilnius University, Lithuania) - Co-chair
 Adil Bagirov (University of Ballarat, Australia)
 Nelson Maculan (University Federal Rio de Janeiro, Brasil)
 Kaisa Miettinen (University of Jyväskylä, Finland)
 Arkadi Nemirovski (Georgia Institute of Technology, USA)
 Yurii Nesterov (Université Catholique de Louvain, Belgium)
 Leonidas Sakalauskas (VU Institute of Mathematics and Informatics, Lithuania)
 Fabio Schoen (University of Florence, Italy)
 Tatiana Tchemisova (University of Aveiro, Portugal)
 Tamas Terlaky (Lehigh University, USA)
 Otu Vaarman (Institute of Cybernetics, Estonia)

Organizing Committee

=====

Vaida Bartkute-Norkuniene (VU Institute of Mathematics and Informatics)- Co-Chair
 Valerijonas Dumskis (Siauliai University, Lithuania)
 Grazvydas Felinskas (Siauliai University, Lithuania)
 Donatas Jurgaitis (Siauliai University, Lithuania) - Chair
 Liudvikas Kaklauskas (Siauliai University, Lithuania)
 Sigita Turskiene (Siauliai University, Lithuania) - Co-Chair
 Gerhard Wilhelm Weber (Middle East Technical University, Turkey, EWG EUROPT)
 Ingrida Vaiciulyte (VU, Institute of Mathematics and Informatics, Lithuania)
 Kestutis Zilinskas (Siauliai University, Lithuania)

Contacts

=====

Secretariat of EurOPT-2012
 Vilnius University, Institute of Mathematics and Informatics
 Akademijos 4, LT-08663 Vilnius
 Lithuania
 Tel. +3705 2109323
 Fax: +3705 2729209
 E-mail: <europt2012@vu.mii.lt>
<http://www.mii.lt/europt-2012>

=====

3 Past Conference, Workshops, and other News

3.1 *A Report on the activities of the INFORMS MCDM Section at the INFORMS Annual meeting in Charlotte, North Carolina (USA), November 13-16, 2011.*

The MCDM Section was established in 2010, having had its roots in the International Society on Multiple Criteria Decision Making dating from 1975. For the 2011 INFORMS conference, the section's president Murat Köksalan organized an MCDM cluster that provided a forum for the MCDM Section in all session slots and made a powerful presence at the conference. This Section was promoted by sponsoring an information desk during the "New Member Welcome & Annual Meeting Orientation Session" that provided detailed information about this cluster and served for recruiting new members for the Section. More than ten members volunteered for that desk service. This effort helped in drawing additional interest and attendance for the cluster as well as in recruiting new members for the MCDM Section. In addition, an information flyer about the MCDM Section was distributed at the conference.



Murat Köksalan and Kalyanmoy Deb recruiting new members at the information

The panel discussion, chaired by Stan Zionts, was one of the highlights of the MCDM cluster.



The panllists (left to right) Ralph Keeney, Jyrki Wallenius, Stanley Zionts, Roman Slowinski and Ralph Steuer.

The panelists (see the photo) discussed "The future of MCDM: where do we go from here?" It was exciting to follow the lively discussion of the highly esteemed panelists and the contributions of the audience. The room was packed and some had to follow the panel standing. Encouraged by the success of this MCDM cluster, the MCDM Section decided to organize another cluster for the 2012 INFORMS meeting in Phoenix to be chaired by Jyrki Wallenius. Anyone interested in organizing sessions and/or giving talks should contact Jyrki Wallenius. In addition to regular sessions, the MCDM Section intends to prepare two MCDM tutorials in Phoenix; tentatively one on the state of the art in MCDM and one on evolutionary multiobjective optimization.

The business meeting was the stage for lively discussions and was followed by a reception. Both events were well-attended. The minutes of the business meeting can be found at <http://www.informs.org/Community/MCDM> clicking the link “Bylaws-and-Meeting-Minutes.” In the elections conducted prior to the conference Ralph Steuer was elected as the new Vice President and Gilberto Montibeller as the new Secretary/Treasurer. Theo Stewart and Margaret Wiecek were elected as the new Board members. The term of Murat Köksalan ended at the end of 2011, and he will serve as an ex-officio board member in 2012. He thanked his fellow officers and board members (Esma Gel, Jyrki Wallenius; Harold Benson, Jim Dyer, Mark Karwan, Larry Seiford, Hannele Wallenius, Stanley Zionts). Murat also thanked all members of the Section for their support and participation. Jyrki Wallenius will serve as the new president during 2012.



Officers and Board Members after the business meeting. (Left to right) Stanley Zionts, Margaret Wiecek, Hannele Wallenius, Murat Köksalan, Esma Gel, Jyrki Wallenius, and Gilberto Montibeller.

All in all, the Charlotte INFORMS conference was a great success for the MCDM Section with high quality talks attracting a large audience. The MCDM Section has reached to over 200 members in about a year. While this is a healthy growth, the size of the MCDM researchers and practitioners worldwide shows a potential of further growth. The MCDM Section urges its members to be involved in recruiting new members. The stronger we get, the more powerful we will be in convincing others about our issues. Membership is open to anyone interested in MCDM. To become a member or to renew your membership for 2012, visit <https://online.informs.org/informsssa/>. The dues for 2012 are \$5 for INFORMS members and \$7 for others.

Murat Koksalan

Johannes Siebert

3.2 74th meeting of the European Working Group on MCDA

The 74th meeting of the European working group on MCDA was proudly held in Switzerland by the HEIG-VD (Haute Ecole d'Ingénierie et de Gestion du Canton de Vaud) in Yverdon-les-Bains.

The EC+G Departement (Environnement Construit et Géomatique) and the G2C applied research and development Institute (Géomatique, Gestion de l'environnement, Construction et surveillance d'ouvrages) skills and professional experiences logically led to choose the following topic for this meeting : "Geographic Information System (GIS), Planning and Environment". It also gave sense to the will of developing a new MCDA skill center in the school.

The MDCA'74 meeting was a great success, gathering 57 participants from 14 countries: Algeria, Belgium, Canada, France, Germany, Greece, Italy, Luxembourg, Morocco, Poland, Spain, Switzerland, Tunisia and United Kingdom. Overall, 32 proposals had been submitted, out of which 16 communications were presented, 16 papers were included for discussion and 4 posters presented by young MCDA researchers.

The controverted theme "Could GIS and MCDA methods put up with predefined softwares in the field of territorial and environmental management ?" ("Les SIG et les méthodes multicritères peuvent-ils se contenter de logiciels prédéfinis dans les problématiques environnement et gestion du territoire ?") has been discussed in a round table composed of a panel of GIS, territorial and MCDA experts, Francis Grin (HEIG-VD), Roland Prélaz-Droux (HEIG-VD) and Marc Pirlot (Université de Mons) under the initiative of Prof. Dominique Bollinger. Although this question wouldn't be answered in a clear way, a lot of elements were highlighted, showing interesting points of views as well from the side of GIS experts as from the side of MCDA experts. A passionate debate on the question of "how clear a decision should be" showed the difference of sensibility of both worlds, which may be able to converge for a better and more reliable decision. This round table maybe helped MCDA experts to better understand the vision of GIS specialists and vice-versa.



All members present to this meeting were delighted by the active participation and the great value of each presentation and paper. Great proposals, discussions and suggestions were surely a very good source of improvement for all work in progress and for the entire community. The variety along with the good gathering of the different sub-topics helped getting a very high quality of scientific level.

As everybody knows, a meeting of the European working group in MCDA cannot be complete without all the social events and time spent to share ideas and friendship. This part of the meeting was greatly appreciated and showed the different aspects of this nice region of Switzerland. It all started with a special gala dinner at the Pro Natura Center offering excellent and unusual bio

meals in a charming atmosphere. Staying in Switzerland and not spending time on chocolate would have been a sin, the visit at the famous Cailler Chocolate House and factory let the participants enter this strange and exciting world, finishing with a free chocolate tasting of each kind of Cailler chocolate. Finally, the discovery of the Gruyères castle after a well-deserved cheese-fondue/raclette meal was the historical highlight closing this great meeting.

Last but not least, a rock concert especially organized for the occasion where group members discovered the other side of their host, Dominique Bollinger as “DOM” on stage, brought the “rock’n’roll” attitude into this meeting, music has always been some trademark of this group meetings, this was then the best occasion to bring it back and show that scientists can rock !

The ladies also had their part where Katia Candolfi Bollinger guide them through some interesting visits and to the Yverdon thermal baths, a tradition of handling accompanying people reborn.

One can conclude that this meeting was a huge success and will remain in members mind until the next meeting in Switzerland ... to be continued.

Dominique Bollinger

3.3 *Dagstuhl Seminar on Learning in multiobjective optimization*

The fourth Dagstuhl seminar, organized by Salvatore Greco (Catania University), Joshua Knowles (Manchester University), Kaisa Miettinen (University of Jyväskylä and KTH Royal Institute of Technology) and Eckart Zitzler (Zurich University), has been held from 22 to 27 January 2011 at the Schloss Dagstuhl (Germany). It collected 53 MCDM and multiobjective optimization researchers from different countries. The topic of the seminar was “learning in multiobjective optimization”.

The seminar program was enriched by keynote talks of Roman Slowinski and Juergen Branke (Interactive multiobjective optimization from a learning perspective), Vincent Mousseau (User preferences in EMO: what can be learned from preference elicitation?), Simon French (Cynefin: Problem formulation and uncertainty), Kalyanmoy Deb (Innovation: Learning problem knowledge through multi-objective optimization), and Jyrki Wallenius (Hybrid evolutionary multi-objective optimization: different interaction styles and an approach). In addition, 12 presentations of very



high level have induced interesting discussion among the participants. An important part of the Dagstuhl seminar in multiobjective optimization are working group for special topics. Participants, divided in six groups, were asked to deal with a particular aspect of it. The six groups nicknames were “Pareto sense”, “Decision maker sense”, “Quantifying learning”, “Navigation”, “Representation” and “Algorithm design methods”. The following brief reports summarize findings from each group:

Pareto sense: What and how can we learn from Pareto fronts and sets? It was studied what and how we can learn from the results of Pareto optimization. The discussion in this group was structured by the following questions: What and how can we learn from Pareto fronts, the optimal points in the decision space, the mapping, and from the constraint function values? The discussions resulted in a broad collection of properties of Pareto fronts and how to interpret them in a decision context. Moreover, visualization methods that can be used to study properties of the Pareto front were put into a structured view. In the discussion it was identified that in many cases features on the Pareto front can be explained by underlying phenomena, such as discrete choices giving rise to cusp points or gaps in mixed-integer problems or mode changes and bifurcations causing knees, dents and gaps in continuous problems. As a particular challenge, learning from the mapping when the decision space consists of structures (e.g. bridges, car systems, molecules) has been pointed out.

Decision Maker sense: This group focused on the interaction between the DM (the user) and the analyst or the Decision Support System (DSS), particularly considering the exploitation of the results obtained through procedures based on the preference information provided by the DM. The fundamental idea is that the DM does not consider the analyst or the DSS as an oracle giving the “correct” result of the decision problem at hand, but (s)he would like to understand the reasons for which a given recommendation is supplied in order to explain it to (her)himself and to other people involved in the decision (for example stakeholders). Different decision models can be used to represent the preference information provided by the DM (e.g. weighted functions,

additive value functions, Choquet integrals), so as different methods could be used in order to provide the DM of an explanation in a clear and natural language (e.g. even-swap, decision rules).

Quantify learning: This group started by considering how we can measure the extent to which decision makers have learnt from use of interactive MCDM methods. The first question related to what can be learnt, and this was seen to include information on what outcomes are or are not achievable, on the structure of the objective space, and on the decision makers' own preferences. A wealth of information is potentially available to assess such learning, varying from quantitative performance measures of the algorithmic implementation to subjective assessments of the extent of learning experienced.



Thereafter the group divided to examine two separate issues. One subgroup looked at monitoring the decision maker's learning through the solutions inspected and the decision maker's response time while using the interactive method. It was concluded that these rules should be discovered through data mining, by comparing the behaviour of decision makers who learned and those who did not learn. The other subgroup looked at an opposite question, namely what can an algorithm learn from the decision maker, through use of explicit decision models, in order reliably to guide search across the Pareto front for a most preferred solution.



Navigation: The group worked on a first approach towards a common understanding of search and decision making approaches to identify the most-preferred solution among the Pareto-set for a multi-objective optimization problem, subsumed under the term of navigation. In such procedures, the decision maker interactively learns about the problem, while the decision support system learns about the preferences of the decision maker. We introduced a detailed view on navigation, leading to the identification of integral components and features. We reviewed and categorized a number of different approaches. Finally, an overview of applications involving navigation is given.

Representation: This working group focused on the issue of learning about the Pareto-optimal set in both decision and objective space from a machine perspective. In this context, learning was understood as the process of obtaining a parsimonious representation of the Pareto-optimal set and/or front, either explicitly by storing points or implicitly by building a model, so as to allow relevant information to be produced in response to Decision Maker queries. A taxonomy of representations was outlined, raising awareness of the distinct requirements of approximate optimization methods, such as evolutionary multiobjective optimizers, and exact optimization methods.

Algorithm design methods: Algorithm Selection Methods: The automatic selection of an optimization and decision method for MCDM requires not only information about the optimization problem but also about the decision maker. The working group first aimed at the

identification of questions that the decision maker must be asked before an automatic algorithm selection can be launched at all. This research was based on a formal model of automatic algorithm selection. Finally, the model was instantiated with a simple example leading to lower and upper bounds on the number of function evaluations and queries to the decision maker. The working group considered these findings as a fruitful seeding point for further research.

Wednesday was probably the busiest day of the seminar. In fact, after lunch, all participants had the pleasure to be immortalized in the group picture, like happened in all previous edition of the seminar. After this everyone enjoyed a five kilometers walk around the seminar venue in the Dagstuhl forest, before visiting the ancient destroyed Dagstuhl castle. Thursday evening, there was the wine cheese party, which was offered by dagstuhl in the name of the Italian company ESTECO which gave a donation to the Dagstuhl Foundation. All participants had a nice time singing several melodies, from which we report the following related to the theme of the seminar:

MCDM Song

LEARNING, that's the question to us
I said, LEARNING, we were thinking too much
I said, LEARNING, here in Dagstuhl we met
thus there is no need to regret

LEARNING, with some EMO inside
I said, LEARNING, and everything's bright
I said, LEARNING, science will always win
there's no need to be unhappy

It's fun to grow with the MCDM
It's fun to grow with the MCDM

They have everything for you guys to enjoy
You can hang out with all the guys

It's fun to grow with the MCDM
It's fun to grow with the MCDM

They have everything for you guys to enjoy
You can hang out with all the guys

Dagstuhl there's a place you can go
I said, Dagstuhl, when you publish a lot
You can stay there, and I'm sure you will find
many ways to have a good time.
Dagstuhl, I was once in your town
I said, Dagstuhl, we walked uphill and down
I said, Dagstuhl, take a walk up the street
I asked when will we again meet

It's fun to grow with the MCDM
It's fun to grow with the MCDM

You can get yourself clean, you can have a good meal
You can do whatever you feel

LEARNING, are you listening to me?
I said, LEARNING, what do you want to be?
I said, EMO, you can make real your dreams
But you've got to know this one thing

No man does it all by himself
I said, EMO put your pride on the shelf
And just go there, to the MCDM
We can help you all today

It's fun to grow with the MCDM
It's fun to grow with the MCDM

You can give a nice talk, you can write with a chalk
You can say whatever you think

It's fun to grow with the MCDM
It's fun to grow with the MCDM

You can give a nice talk, you can write with a chalk
You can say whatever you think

It's fun to grow with the MCDM
It's fun to grow with the MCDM

You can give a nice talk, you can write
with a chalk

You can say whatever you think

Joshua, you did a pretty good job

I said, Salvo, we will stay on the top

I said, Kaisa, please invite us once more

Ecki, see you soon here again

Let's stay in touch with the MCDM

Let's stay in touch with the MCDM

La-la-laa

Let's stay in touch with the MCDM

Let's stay in touch with the MCDM



On Friday morning, after a brief exposition of the working groups related to their works and future aims, all participants were involved in a discussion, in order to underline the negative and the positive things that have characterized this fourth Dagstuhl seminar, and to begin to think of the theme of the next Dagstuhl seminar which could take place after two and a half or three years. In particular, during the final thanks from the organizers, all the participants received the news that Kaisa Miettinen, so as Eckart Zitzler, will not be among the organizers of the next Dagstuhl seminar, but they will be substituted by Katrin Klamroth and Gunter Rudolph.

Salvatore Corrente (and working groups)

3.4 *Workshop of the German Working Group on Decision Theory and Applications, Helmut-Schmidt-University, University of the Federal Armed Forces Hamburg, Germany 30.03.2011-01.04.2011*

The 2011 Workshop of the German Working Group on Decision Theory and Applications took place from March 30th to April 1st, 2011, at the Helmut-Schmidt-University Hamburg. Similar to events in the past, the meeting was jointly organized with another working group within GOR, the German Operations Research Society. In 2011, it was the group on *System Sciences* (managed by Stefan Voß, University of Hamburg), from which several important approaches came to influence the further development of decision theory.

Together with Stefan Voß and Jutta Geldermann (University of Göttingen), who is in charge of the working group, we managed to attract 17 talks on various subjects, all of which were well received by the audience. Despite the fact that traditionally, the meeting plays more on a national level, some attendees from other European countries, i.e. France and Austria, attended, also. So in the end, a friendly and positive atmosphere was created, stipulating the exchange of ideas and results over borders and disciplines.



Besides the scientific program, an afternoon-excursion led us to the famous shipyard of Blohm+Voss. There, we also have been able to get a grasp of the typical weather of Hamburg in and around April (which is: rain).

A post-workshop-volume of selected papers is currently produced, collecting some recent research contributions of our field.

Martin Josef Geiger, m.j.geiger@hsu-hh.de

4 New Books/Publication

This section presents a list of papers published in 2011, 2012 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.

4.1 Books and book chapters

Ehrgott M.: **Single-search-based heuristics for multiobjective optimization**, In: Cochran, J.J. (ed.), *Wiley Encyclopaedia of Operations Research and Management Science*, New York, John Wiley & Sons, 2011.

Przybylski A., Gandibleux X., Ehrgott M.: **The two-phase method for multiobjective combinatorial optimization problems**, In: Mahjoub, R. (ed.), *Progress in Combinatorial Optimization*, London, ISTE Wiley, 559-596, 2011.

Salo A., Morton A., Keisler J. (eds.): **Portfolio decision analysis: improved methods for resource allocation**. Springer, New York, USA, 2011.

Zarghami M., Szidarovszky F.: **Multicriteria Analysis: Applications to Water and Environment Management**, Springer, 1st Edition, 2011.

4.2 Journal papers

Almeida P., Dias L.: **Value-based DEA models: application-driven developments**, *Journal of the Operational Research Society*, 63(1), 16-27, 2012.

Argyris N., Figueira J.R., Morton A.: **Identifying preferred solutions to multi-objective binary optimisation problems, with an application to the multi-objective knapsack problem**, *Journal of Global Optimization*, 49(2), 213-235, 2011.

Asadi E., Gameiro da Silva M., Antunes C.H., Dias L.: **Multi-objective optimization for building retrofit strategies: a model and an application**, *Energy and Buildings*, 44(1), 81-87, 2012.

Aznar J., Guijarro F., Moreno-Jiménez J.M.: **Mixed Valuation Methods: A Combined AHP-GP procedure for individual and group multicriteria agriculture valuation**, *Annals of Operations Research*, 190(1), 221-238, 2011.

Bellosta M.J., Kornman S., Vanderpooten D.: **Preference-based English reverse auctions**, *Artificial Intelligence*, 175(7-8), 1449-1467, 2011.

Bjorndal T., Herrero I., Newman A., Romero C., Weintraub A.: **Operations Research in the Natural Resources Industry**, *International Transactions in Operational Research*, 19, 39-62, 2012.

Diaz-Balteiro L., Voces R., Romero C.: **Making Sustainability Rankings Using Compromise Programming: An Application to the European Paper Industry**, *Silva Fennica*, 45, 761-773, 2011.

Dietz S., Morton A.: **Strategic appraisal of environmental risks: a contrast between the United Kingdom's Stern Review on the economics of climate Change and its Committee on Radioactive Waste Management**, *Risk analysis*, 31(1), 129-142, 2011.

Ehrgott M., Löhne A., Shao L.: **A dual variant of Benson's "outer approximation algorithm" for multiple objective linear programming**, *Journal of Global Optimization*, DOI: 10.1007/s10898-011-9709-y, 2011.

Ehrgott M., Shao L., Schöbel A.: **An approximation algorithm for convex multi-objective programming problems**, *Journal of Global Optimization*, 50, 397-416, 2011.

Ehrgott M., Wang J.Y.T., Raith A., van Houtte C.: **A bi-objective cyclist route choice model**, *Transportation Research Part A*, DOI:10.1016/j.tra.2011.11.015, 2012.

Eskelinen P., Miettinen K.: **Trade-off Analysis Approach for Interactive Nonlinear Multiobjective Optimization**, *OR Spectrum*, DOI: 10.1007/s00291-011-0266-z, to appear.

Galand L., Spanjaard O.: **Exact algorithms for OWA-optimization in multiobjective spanning tree problems**, *Computers & Operations Research*, 39, 1540-1554, 2012.

Gomes L.F.A.M., Rangel L.A.D., Leal Filho M.R.: **Treatment of uncertainty through the interval smart / swing weighting method: a case study**, *Pesquisa Operacional*, 31, 467-485, 2011.

González-Pachón J., Romero C.: **The Design of Socially Optimal Decisions in a Consensus Scenario**, *Omega, The International Journal of Management Science*, 39, 179-185, 2011.

Hakanen J., Miettinen K., Sahlstedt K.: **Wastewater Treatment: New Insight Provided by Interactive Multiobjective Optimization**, *Decision Support Systems*, 51, 328-337, 2011.

Hartikainen M., Miettinen K., Wiecek M.M.: **PAINT: Pareto Front Interpolation for Nonlinear Multiobjective Optimization**, *Computational Optimization and Applications*, DOI: 10.1007/s10589-011-9441-z, to appear.

Hartikainen M., Miettinen K., Wiecek M.M.: **Constructing a Pareto Front Approximation for Decision Making**, *Mathematical Methods of Operations Research*, 73(2), 209-234, 2011.

Kaliszewski I., Miroforidis J., Podkopaev D.: **Interactive Multiple Criteria Decision Making based on preference driven Evolutionary Multiobjective Optimization with controllable accuracy**, *European Journal of Operational Research*, 216, 188-199, 2012.

Luque M., Miettinen K., Ruiz A.B., Ruiz F.: **A Two-Slope Achievement Scalarizing Function for Interactive Multiobjective Optimization**, *Computers & Operations Research*, 39(7), 1673-1681, 2012.

Luque M., Ruiz F., Miettinen K.: **Global Formulation for Interactive Multiobjective Optimization**, *OR Spectrum*, 33(1), 27-48, 2011.

Machuca E., Mandow L.: **Multiobjective heuristic search in road maps**, *Expert Systems with Applications*, Available online 23 December 2011.

Machuca E., Mandow L., Pérez de la Cruz J.L., Ruiz-Sepulveda A.: **A Comparison of Heuristic Best-First Algorithms for Bicriterion Shortest Path Problems**, *European Journal of Operational Research*, 217, 44-53, 2012.

Martin M.A., Cuadrado M.L., Romero C.: **Computing Efficient Financial Strategies: An Extended Compromise Programming Approach**, *Applied Mathematics and Computation*, 217, 7831-7837, 2011.

Meirelles C.L.A., Gomes L.F.A.M.: **An application of multiattribute utility theory to knowledge management**, *Revista de la Escuela de Perfeccionamiento en Investigación Operativa*, XIX, 43-59, 2011.

Morton A., Bird D., Jones A., White M.: **Decision conferencing for science prioritisation in the UK public sector: a dual case study**, *Journal of the Operational Research Society*, 62(1), 50-59, 2011.

Moshkovich H., Gomes L.F.A.M., Mechitov A.I.: **An integrated multicriteria decision-making approach to real estate evaluation: case of the TODIM method**, *Pesquisa Operacional*, 31, 3-20, 2011.

Nikulin Y., Miettinen K., Mäkelä M.M.: **A New Achievement Scalarizing Function based on Parametrization in Multiobjective Optimization**, *OR Spectrum*, 34(1), 69-87, 2012.

Raith A., Ehrgott M.: **On vector equilibria, vector optimization and vector variational inequalities**, *Journal of Multi-Criteria Decision Analysis*, 18, 39-54, 2011.

Ram C., Montibeller G., Morton A.: **Extending the use of scenario planning and MCDA for the evaluation of strategic options**, *Journal of the Operational Research Society*, 62 (5), 817-829, 2011.

Rangel L.A.D., Gomes L.F.A.M., Cardoso F.P.: **An application of the TODIM method to the evaluation of broadband Internet plans**, *Pesquisa Operacional*, 31, 235-249, 2011.

Ruiz F., Luque M., Miettinen K.: **Improving the Computational Efficiency of a Global Formulation (GLIDE) for Interactive Multiobjective Optimization**, *Annals of Operations Research*, DOI:10.1007/s10479-010-0831-x, to appear.

Ruuska S., Miettinen K., Wiecek M.M.: **Connections between Single-level and Bilevel Multiobjective Optimization**, *Journal of Optimization Theory and Applications*. DOI: 10.1007/s10957-011-9943-y.

Sindhya K., Deb K., Miettinen K.: **Improving Convergence of Evolutionary Multi-Objective Optimization with Local Search: A Concurrent-Hybrid Algorithm**, *Natural Computing*, 10(4), 1407-1430, 2011.

Sindhya K., Miettinen K.: **New Perspective to Continuous Casting of Steel with a Hybrid Evolutionary Multiobjective Algorithm**, *Materials and Manufacturing Processes*, 26(3), 481-492, 2011.

Sindhya K., Ruuska S., Haanpää T., Miettinen K.: **A New Hybrid Mutation Operator for Multiobjective Optimization with Differential Evolution**, *Soft Computing*, 15(10), 2041-2055, 2011.

Tam B., Ehrgott M., Ryan D., Zakeri G.: **A comparison of stochastic programming and bi-objective optimisation approaches to robust airline crew scheduling**, *OR Spectrum*, 33, 49-75, 2011.

4.3 Conference proceedings

Ayala I., Mandow L., Amor M., Fuentes L.: **Multiobjective Tourist Urban Route Planning with Mobile Devices**, In José Bravo; Diego López-de-Piña; Sergio Ochoa y Jesús Favela (Eds.), *5th International symposium on ubiquitous computing and ambient intelligence*, 2011.

Hartikainen M., Miettinen K., Wiecek M.M.: **Decision Making on Pareto Front Approximations with Inherent Nondominance**, in proceedings of *New State of MCDM in the 21st Century, Selected Papers of the 20th International Conference on Multiple Criteria Decision Making*, Ed. by Y. Shi, S. Wang, G. Kou, J. Wallenius, Springer-Verlag, 35-45, 2011.

Machuca E., Mandow L.: **Multiobjective route planning with precalculated heuristics**, *Proceedings of the 15th Portuguese Conference on Artificial Intelligence*, L. Antunes, H. Sofia Pinto, R. Prada, P. Trigo (Eds.), 98-107, 2011.

Machuca E., Mandow L., Pérez de la Cruz J.L., Iovanella A.: **Heuristic Multiobjective Search for Hazmat Transportation Problems**, *XIV Conference of the Spanish Association for Artificial Intelligence*, LNAI 7023, Springer, 243-452, 2011.

Podkopaev D., Miettinen K.: **Handling Preferences in the "Pre-conflicting" Phase of Decision Making under Multiple Criteria**, in *ADT 2011*, Ed. by R.I. Grafman, F. Roberts, A. Tsoukias, Springer-Verlag, 234-246, 2011.

Pulido F.J., Mandow L., Pérez de la Cruz J.L.: **An analysis of bidirectional heuristic search in game maps**, *XIV Conference of the Spanish Association for Artificial Intelligence*, *Avances en Inteligencia Artificial*, 1, 2011.

Raith A., Nataraj U., Ehrgott M., Miller G., Pauw K.: **Prioritising cycle infrastructure projects**, Paper no. 158 in *Proceedings of 34th Australasian Transport Research Forum*, 2011.

Raith A., Wang J., Ehrgott M., Mitchell J.: **Solving multi-objective traffic assignment**, Proceedings of ORP3, EURO Conference for Young OR Researchers, 2011.

Shao L., Ehrgott M.: **An approximation algorithm for convex multiplicative programming problems**, in *Proceedings of the 2011 IEEE Symposium on Computational Intelligence in Multicriteria Decision-Making*, 175-181, 2011.

Sindhya K., Miettinen K., Deb K.: **An Improved Concurrent-Hybrid Algorithm for Enhanced Diversity and Accuracy in Evolutionary Multi-Objective Optimization**, in *Evolutionary and Deterministic Methods for Design, Optimization and Control, Applications to Industrial and Societal Problems*, Ed. by T. Burczynski, J. Periaux, CIMNE, Barcelona, 182-187, 2011.

Sindhya K., Ruiz A. B., Miettinen K.: **A Preference Based Interactive Evolutionary Algorithm for Multiobjective Optimization: PIE**, in *Proceedings of Evolutionary Multi-Criterion Optimization: 6th International Conference*, Ed. by R.H.C. Takahashi, K. Deb, E.F. Wanner, S. Greco, Springer-Verlag, 212-225, 2011.

4.4 Research Reports

Kaliszewski I., Miroforidis J., Podkopaev D.: **Interactive Multiple Criteria Decision Making based on preference driven Evolutionary Multiobjective Optimization with controllable accuracy - the case of ρ efficiency**, Systems Research Institute Report RB/1/2011, p. 36.

5 Research Team Presentation: MO Group Auckland

5.1 *About the research group*

The multiobjective optimisation group in the Department of Engineering Science at the University of Auckland is a small subgroup of the Operations Research group of the department. It consists of three academic staff and 9 PhD students, as well as about 5 to 10 Bachelor and Master's students in any academic year (In New Zealand the academic year runs from March to November, which is why there are none of these listed below). The group mainly does research on theory, methodology and applications of multiobjective optimisation, but also Operations Research and optimisation in general. The theoretical and algorithmic focus is on combinatorial, network and linear optimisation problems. The group has contributed to the development of the two phase method for multiobjective combinatorial optimisation and outer approximation algorithms for multiobjective linear programming. In applications our strength is in medicine (optimisation of radiotherapy treatment planning) and transportation (in a very wide sense, from methods for traffic modelling, route choice and portfolio selection to airline crew scheduling).

The group is currently engaged with two major research projects. In a project funded by the Marsden Fund of the Royal Society of New Zealand the group develops algorithms for multiobjective network equilibrium problems. Network equilibrium problems are used to model user behaviour in networks and are important tools in transport planning. In the light of tolling and environmental goals there is a need to generalise standard network equilibrium models and algorithms that consider only a single cost function, to proper multiobjective versions. The group is also part of a project under the European Union International Research Staff Exchange Programme called OptALI or Optimisation and its Application in Learning and Industry (see www.optali.com). This project is jointly funded by the EU and the New Zealand Ministry of Research Science and Technology and supports researcher exchanges between the University of Auckland, the University of Canterbury (in Christchurch, NZ), the Technical University of Kaiserslautern, Georg-August University of Göttingen (both in Germany) and the Technical University of Denmark. While this project covers optimisation in a wider sense, multiobjective optimisation features prominently.

A distinguishing feature of the group's work is that most research is inspired by practical applications, such as radiotherapy treatment planning, airline crew scheduling and recovery, and transportation planning. This focus on applications often leads to the necessity of having to develop new methods that can handle the specific features and difficulties of the application; it therefore provides an approach that both provides real benefits to the application and satisfies the scientific need to contribute to MCDM research. Another distinguishing feature, as you will no doubt notice later, is the international composition of the group.

The group is active in the international MCDM community with Professor Ehrgott being a member of the Executive Committee of the International Society on MCDM since 2002. In January 2008 they organised the 19th International Conference on MCDM with 125 participants from about 30 countries.

5.2 *Members*

The group was founded and is headed by Matthias Ehrgott, who is also currently the Head of Department of Engineering Science. Other staffs are Dr Judith Wang and Dr Andrea Raith.

5.2.1 *Staff*

Professor Matthias Ehrgott grew up in Germany. He obtained Master, PhD and Habilitation degrees in Mathematics from the University of Kaiserslautern in Germany. In 2000 he joined the Department of Engineering Science at the University of Auckland as a lecturer. In 2004 he was promoted to Associate Professor and since 2011 he is a full Professor and Head of Department. Matthias has published 19 authored or edited books and special issues of journals and nearly 60 journal papers, most of these on MCDM topics. Eight students have completed PhDs under his supervision, four of which currently hold academic positions in Italy, France, China and New Zealand. He is the Vice President of the Operations Research Society of New Zealand and from 2006 to 2008 he held a dual appointment as Directeur de Recherche CNRS at the University of Nantes, France.

Dr Judith Wang, Senior Research Fellow, was born in Hong Kong. She holds a MSc(Eng) in Transport Planning and Engineering from University of Leeds (1993) and a PhD from Hong Kong University of Science and Technology (2004). Judith has an 18-year career in transport planning, with extensive experience not only in academia but also in the transport industry. She has published several papers in top transportation journals.

Dr Andrea Raith, Lecturer, has received BSc and MSc degrees in mathematics from the Technical University of Darmstadt, Germany, in 2003 and 2005, respectively. She then joined the Department of Engineering Science to study for a PhD, which she completed in 2010. Her thesis “Multiobjective Routing and Transportation Problems” was a finalist in the Vice Chancellor’s best PhD thesis competition and the inaugural MCDM Society Dissertation award.

5.2.2 *PhD students*

Bassy Tam, born in Hong Kong, joined the Department of Engineering Science for her Master’s degree. She submitted her PhD thesis “Optimisation Approaches for Robust Airline Crew Scheduling” in November 2011.

Imran Ishrat, originally from India, is working on a PhD addressing the optimal recovery from irregular airline operations.

Siamak Moradi, from Iran, is extending our previous work on bi-objective network flow problems to multi-objective multi-commodity flow problems with the ultimate goal to apply the resulting algorithms to traffic assignment problems.

Kuan-Min Lin, of Taiwanese origin, started his PhD on Multiobjective Optimisation of Intensity Modulated Arc Therapy, a modern form of radiotherapy treatment of cancer, in April 2011.

Olga Perederieieva, from Ukraine, has joined the group in late October 2011 and is already making great progress on her project of developing algorithms for multi-objective network equilibrium problems.

Zhengliang Liu completed a Bachelor’s degree in Fashion Design and Engineering in China. He then moved to Auckland, discovering his love of OR in a Postgraduate Diploma in Operations

Research. He will start his PhD on optimisation over the efficient set of multiobjective optimisation problems in January 2012.

Guillermo Cabrera will join the group from Chile early 2012 to work on a PhD topic of combining heuristics and mathematical optimisation to solve hard multi-objective combinatorial optimisation problems, concentrating on problems arising in the optimisation of radiation therapy treatment planning.

Anthony Phillips, the only true Kiwi (New Zealander) in the group, is currently working on Optimisation Approaches for University Course timetabling, already beating best known results from the International Timetabling competition. Anthony works jointly with Matthias and Professor David Ryan.

Abhishek Gupta, from India, uses evolutionary multiobjective optimisation algorithms in conjunction with finite element models to optimise the manufacturing of composite materials. His work is jointly supervised with Dr Piaras Kelly, of the department's continuum mechanics research group.

5.2.3 Master students

Nicholas Simmons just completed his BE(hons) degree in 2011 working on a research project concerned with the simulation of bus services in order to improve bus frequencies. He will continue with a Master's project looking at optimisation aspects of the problem next year.

5.2.4 Visitors

Due to the OptALI research project (and possibly the popularity of New Zealand as a travel destination) the group often host academic visitors, either students who spend some time here to work on their thesis or academics who collaborate with the research group. The current visitors are

Jonas Ide, Georg-August University Göttingen (Germany) does his PhD on the new area of robust multiobjective optimisation.

Christian Friedrich from Braunschweig University of Technology (Germany) works on heuristic solution methods for the cyclist routing problem, a bi-objective problem with objectives to minimise path length and maximise path suitability.

Maryam Hassanassab, from Iran, is visiting for six months to work on an MOLP approach for Data Envelopment Analysis.

Felix Geyer, Technical University of Kaiserslautern (Germany) writes his Bachelor project on the multiobjective transportation problem while in Auckland.

This list will increase considerably early in 2012, when the group expects Professor Horst W. Hamacher and PhD students Bob Grün, Lara Turner and Florian Seipp from the Technical University of Kaiserslautern as well as PhD student Baratallah Ghaznavi-Ghoshoni from Iran.

5.3 Ten important publications related to MCDM

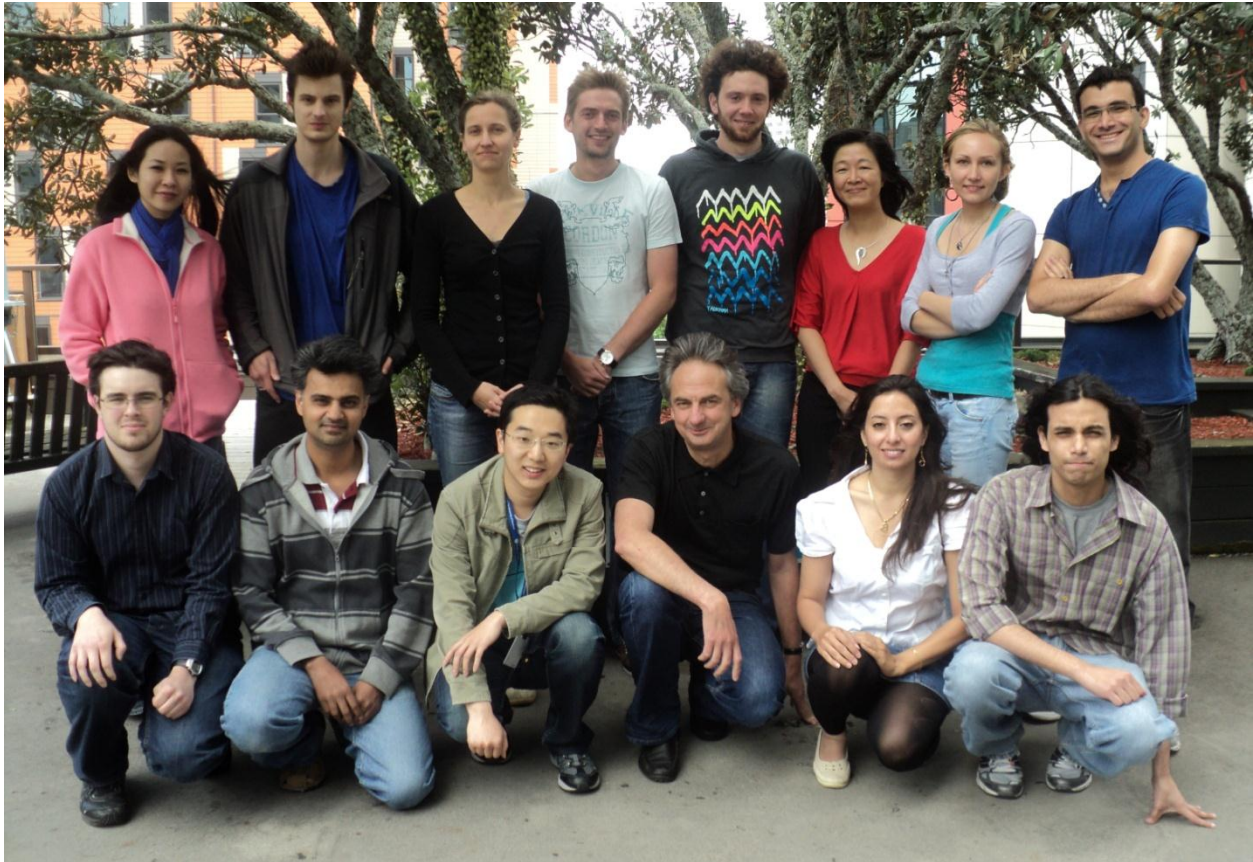
1. EHRGOTT, M. *Multicriteria Optimization (Second Edition)*. Berlin, Springer, 323 pages, 2005.
2. EHRGOTT, M.; NAUJOKS, B.; STEWART, T.J.; WALLENIIUS, J. *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*. Volume 634 of

- Lecture Notes in Economics and Mathematical Systems, Berlin, Springer, 2010. (Proceedings of MCDM 2008)
3. EHRGOTT, M.; FONSECA, C.M.; GANDIBLUX, X.; HAO, J.-K.; SEVAUX, M. *Evolutionary Multi-Criterion Optimization*. Volume 5467 of Lecture Notes in Computer Science, Berlin, Springer, 586 pages, 2009. (Proceedings of EMO 2009)
 4. BARICHARD, V.; EHRGOTT, M.; GANDIBLEUX, X.; T'KINDT, V. *Multiobjective Programming and Goal Programming – Theoretical Results and Practical Applications*. Volume 618 of Lecture Notes in Economics and Mathematical Systems. Berlin, Springer, 298 pages, 2009. (Proceedings of MOPGP 2006)
 5. EHRGOTT, M.; WANG, J.Y.T.; RAITH, A.; VAN HOUTTE, C. 'A Bi-objective Cyclist Route Choice Model' *Transportation Research A*, DOI: 10.1016/j.tra.2011.11.015, 2011
 6. EHRGOTT, M.; LÖHNE, A.; SHAO, L. 'A dual variant of Benson's outer approximation algorithm for multiple objective linear programming' *Journal of Global Optimization*, DOI: 10.1007/s10898-011-9709-y, 2011.
 7. RAITH, A.; EHRGOTT, M. 'On vector equilibria, vector optimisation and vector variational inequalities' *Journal of Multi-Criteria Decision Analysis*, 18, 39-45, 2011.
 8. PRZYBYLSKI, A.; GANDIBLEUX, X.; EHRGOTT, M. 'A two phase method for multi-objective integer programming and its application to the assignment problem with three objectives' *Discrete Optimization*, 7, 149-165, 2010.
 9. RAITH, A.; EHRGOTT, M. 'A comparison of solution strategies for bi-objective shortest path problems' *Computers & Operations Research*, 36, 1299-1331, 2009.
 10. SHAO, L.; EHRGOTT, M. 'Approximately solving multiobjective linear programmes in objective space and an application in radiotherapy treatment planning' *Mathematical Methods of Operations Research*, 68, 257-276, 2008.

5.4 Software developed at the research group

The group has developed software for bi-objective shortest path problems, bi-objective network flow problems, multi-objective linear programming. They are in the progress of developing open source software for data envelopment analysis (codename DEA.py) and multiobjective equilibrium algorithms. None of the code is currently available for download. If you are interested, please contact the group (see contact information below).

5.5 Photo of the MO Group Auckland



Back row: Bassy Tam, Anthony Phillips, Andrea Raith, Christian Friedrich, Jonas Ide, Olga Perederieieva, Siamak Moradi

Front row: Nicholas Simmons, Imran Ishrat, Zhengliang Liu, Matthias Ehgott, Maryam Hassanassab, Abhishek Gupta

5.6 Contact details

Professor Matthias Ehgott
 Head of Department
 Department of Engineering Science
 The University of Auckland
 Mail Address: Private Bag 92019, Auckland Mail Centre
 Auckland 1142, New Zealand
 Phone: +64 9 373 7599 ext 82421
 Fax: +64 9 373 7468
 email: m.ehgott AT auckland DOT ac DOT nz
 Internet: <http://www.des.auckland.ac.nz/uoa/matthias-ehgott>

6 List of members with invalid email address



International Society on Multiple Criteria Decision Making

ID	First Name	Last Name	Country
10800	Badr Eldin Sayed Moha	Abd-el Naby	EGYPT
10566	Maher	Abu-Taleb	JORDAN
11232	Raphael Adelani	Adeyemi	NIGERIA
10535	Bashar	Al-Kloub	JORDAN
10741	Alileche	Amar	ALGERIA
10511	Abdelhakim	Artiba	FRANCE
10341	Atanas T.	Atanassov	BULGARIA
11047	Abbas	Azimov	TURKEY
10604	Athanase	Bakunda	
10702	Gabriella	Balestra	ITALY
10808	Mohamed	Bayoumi	EGYPT
10967	Khalid	Belkeziz	MOROCCO
10195	P. George	Benson	UNITED STATES
11102	Mohamed Ali	Boussema	TUNISIA
10721	Ahmed	Bufardi	
11355	Altannar	Chinchuluun	UNITED STATES
10586	Guillermo	Civetta	ARGENTINA
11099	Altan	Coner	TURKEY
10916	John	Croston	UNITED KINGDOM
10693	Farhang	Dadkhah	IRAN
10309	Bal Kishan	Dass	INDIA
10717	Mickael	Daubie	BELGIUM
10337	Natalino	Dazzi	ITALY
11371	Burcu	Dikmen	TURKEY
10156	David	Dodson	UNITED STATES
10925	Dan	Drafta	ROMANIA
10859	Yuli A.	Dubov	RUSSIA
10168	James Don	Edwards	UNITED STATES
10497	Abdelwahab	El-Abyad	EGYPT
10436	Ali S.	El-Aroud	LIBYA
10126	Bill	Ellis	UNITED STATES
10692	Ahmed A.	Elsawy	EGYPT

10806	Elhamy	Elsherif	EGYPT
10424	Jochen	Ester	GERMANY
10662	Osama	Ezeldinemam	EGYPT
10740	Krim	Fariza	ALGERIA
10205	Louise	Farr	UNITED STATES
10633	Gao	Feng-ji	CHINA
10753	Feng-ji	Gao	CHINA
10594	Dunia Maria	Garcia Lorenzo	CUBA
11039	Anthony	Gear	UNITED KINGDOM
10634	Iraj	Ghollami Alam	IRAN
10801	Belal Abdel Magid Ali	Glala	EGYPT
10615	Celso Silva	Gomes	BRAZIL
10308	Roberto L.V.	Gonzalez	ARGENTINA
11326	ilkay	Gultas	TURKEY
10233	John S.	Hammond	UNITED STATES
10578	Jingxuan	Han	CHINA
10763	Farhad	Hosseinzadeh Lotfi	IRAN
10372	Yuda	Hu	CHINA
10962	Bui Nguyen	Hung	VIETNAM
10764	Gholamreza	Jahanshahloo	IRAN
11066	Tarak	Joulak	TUNISIA
10226	Susan Herrod	Julius	UNITED STATES
10718	Shashi	Kant Mishra	INDIA
10291	Rajnath	Kaul	INDIA
10155	Asterios G.	Kefalas	UNITED STATES
10683	Baruch	Keren	ISRAEL
10629	Jabeur	Khaled	CANADA
10628	Bun-Luk	Khuong	CANADA
10778	Newal	Kishore	INDIA
10174	Frances R.	Lax	UNITED STATES
10577	Maria Amparo	Leon Sanchez	CUBA
10709	Jean Baptiste	Lesourd	FRANCE
10445	Chong-Jun	Li	CHINA
10173	C. A. Knox	Lovell	UNITED STATES
10090	James M.	Malone, II	UNITED STATES
10540	Patricia	Martin	FRANCE
11038	Joseph B.	Matusov	RUSSIA
10757	Ruth	Milewski	GERMANY
10730	Ridelio	Miranda Perez	CUBA
11233	Musibau Alaba	Moronfolu	NIGERIA
10380	Henri	Muller-Malek	BELGIUM
10910	Gennadiy Ye.	Naumov	RUSSIA
10371	Mohammad Kazem	Naziri	IRAN
10711	An	Ngo The	FRANCE

10796	Marie Louise	Nonge	CONGO
11231	Emmanuel Segun	Ogunyemi	NIGERIA
10215	Ify	Okoye	UNITED STATES
10385	Anna	Ostanello	ITALY
10923	Pham	Phu	VIETNAM
10402	Yinfeng	Qi	CHINA
10227	Howard	Raiffa	UNITED STATES
10581	P.	Rajasekharan	INDIA
10462	Guozhen	Ruan	CHINA
10674	Michel	Rudnianski	FRANCE
10375	Omarmohamed	Saad	EGYPT
10700	Saber	Saati Mohtadi	IRAN
10175	Charles S.	Sanford, Jr.	UNITED STATES
10749	G. V.	Sarma	INDIA
10602	Prem Kumar	Saxena	INDIA
10515	Giuseppe	Scannella	BELGIUM
11179	Olena	Shembyelyeva	UKRAINE
10491	Fang	Shi	CHINA
10941	Dinesh Lal	Shrestha	NEPAL
10601	Preetvanti	Singh	INDIA
10947	Ivan S.	Stanchev	NETHERLANDS
10589	Cristina	Stanciulescu	BELGIUM
10884	Michael	Stratford	UNITED KINGDOM
10576	Osvaldo Fosado	Telles	CUBA
10091	Mark A.	Tumeo	UNITED STATES
11037	Dirk	Van Mourik	NETHERLANDS
10876	Victor L.	Volkovich	UKRAINE
11438	Oliver	Weide	
10447	XiaoQing	Wu	CHINA
10487	Wenjiang	Wu	CHINA
10179	Diana	Yakowitz	UNITED STATES
10099	K. Paul	Yoon	UNITED STATES
11130	Mallam	Zaji Bunu	NIGERIA
10802	Mervat	Zaki	EGYPT
10485	Jie	Zhang	CHINA
10446	Yihua	Zhong	CHINA

7 Imprints

Dr. Johannes Siebert
Chair of Business Administration V
Operations Management
University of Bayreuth
D-95440 Bayreuth
Germany
fon: +49 921 55 619 4
Fax: +49 921 55 619 2

newsletter@mcdmsociety.org

Lucie Galand: lucie.galand@dauphine.fr
Karthik Sindya: karthik.sindhya@jyu.fi
Salvatore Corrente: salvatore.corrente@unict.it

We are working on publishing the newsletter of the International Society on Multiple Criteria Decision Making two times a year. Contributions can be sent at any time to the editor (please see the address provided above).