



Newsletter 9 of EUROPT

The Continuous Optimization Working Group of EURO

http://www.iam.metu.edu.tr/EUROPT/

January 2008

Words from the Chair

Dear Members of EUROPT, dear Friends,

Hopefully, you entered the New Year 2008 healthy and well! The previous year belonged to our extraordinarily active ones – thank you very much for all your faithfulness, friendship and devotion in many jobs, works and responsibilities; thank you very much for being there, for EUROPT, the other members, for your local colleagues and friends, for everyone to whom you could give help and advice and, perhaps, an idea of the idea and vision that we share in EUROPT. Please allow me to give a special address of gratitude to the other members of EUROPT Managing Board, to our two EUROPT Coordinators and to our EUROPT Fellow 2007, Prof. Georg Still!

We in EUROPT altogether could prepare, foster and conduct many events, special issues of journals, support other EURO working groups, but also many national OR societies and their collaboration, EURO, INFORMS, IFORS and SIAM - finally, our European countries and the nations on earth.

Now, we have about 900 members in EUROPT. A cordial welcome to all new members who recently joined us!

Closer information about the last year 2007 and our preparations and plans for the year 2008 – and, in part, 2009, already – will be found in the Annual Report 2007-2008 which is going to be prepared in the next 2 months.

Please let me recall the events of the year 2008 co-organized or sponsored by EUROPT (in chronological order):

- Workshop in Memory of Professor Hayri Körezlioğlu: Recent Developments in Financial Mathematics and Stochastic Calculus (http://korezlioglu.iam.metu.edu.tr/), Ankara, Turkey, April 25-26.
- o International Workshop on Hybrid Systems: Modeling, Simulation and Optimization (http://portal.ku.edu.tr/~systemslab/hs/), Istanbul, Turkey, May 14-17.
- o 20th Mini EURO Conference Continuous Optimization and Knowledge-Based Technologies, EurOPT 2008 (http://www.mii.lt/europt-2008/), Neringa, Lithuania, May 20-23.
- International Conference on Engineering Optimization, EngOpt 2008 (http://www.engopt.org/), Rio de Janeiro, Brazil, June 1-5.
- EURO-CBBM Conference on Computational Biology, Bioinformatics and Medicine (http://euro-cbbm.ku.edu.tr/RomeConference/homepage.htm), Rome, Italy, September 15-17.

Furthermore, we serve in promoting and scientifically enriching

- o IFORS 2008 Sandton (http://www.ifors2008.org), South Africa, July 13-18
- and the following conference prepared by our friends from EURO Working Group on Decision Support Systems
 - IFIP TC8/WG8.3 Working Conference International Conference on Collaborative Decision Making (CDM'08) (http://www.irit.fr/CDM08/). Manufacture des Tabacs. Toulouse. France. July 1-4.

Here, our dear member Prof. Tatiana Tchemisova will serve as a representative of EUROPT. Indeed, EURO WG on DSS belongs to EUROPT's closest friends among the EURO working groups, and so does the EURO WG on Complex Societal Problems and the two new EURO working groups: EURO WG "OR in Computational Biology, Bioinformatics and Medicine" (EURO CBBM; see above) and EURO WG "OR for Development" (EURO ORD). EUROPT very much supports the applications of these groups for Mini EURO-Conferences!

Many members of EUROPT support SIAM Conference on Optimization (http://www.siam.org/meetings/op08/), Boston, Massachusetts, May 10-13, 2008, and we are present and active in many other places all over the world. For all those future events we will do our best to relate scientific excellence and quantitative growth with intensified efforts in hospitality and "social fantasy" — every participant should be benefitting and become satisfied as well as possible.

One more final point which might be exciting for many of us: During our Mini-EURO Conference in Neringa, Lithuania, we shall disclose the secret about who is our *EUROPT Fellow 2008*! There, we shall appoint her or him very solemnly. In the e-newsletter following the Neringa meeting you will learn more about him or her.

To all members of EUROPT who are ill or in sadness today, we wish a soon and strong recovering, a lot of health and hope! All the best to them and to all of you!

Let me now wish to us a lot of pleasure when reading this 9th Newsletter. Thanks to our friend and newsletter editor Prof. Miettinen, dear Kaisa, for all her care and tasteful efforts.

With best wishes, Your sincerely, Gerhard-Wilhelm Weber, Chair of EUROPT

P.S. In memory of our friend and teacher, EUROPT Fellow 2006, Prof. Dr. Alexander Rubinov, who left us in 2006, his University of Ballarat (Australia) and research center CIAO plan the introduction of an Australian Federation Fellow in Optimization, and announce a new professorship - the Alexander Rubinov Professor of Mathematics. We cordially thank all the colleagues who spend efforts to make these precious implementations become true!



Taylor & Francis are delighted to announce that individual members of the **EUROPT** are eligible for substantially discounted personal subscriptions to the following Journal:

Optimization Methods and Software



Optimization Methods and Software (ISSN print 1055-6788; online 1029-4937) is published six times per year by Taylor & Francis and is currently in its 23rd volume (2008). The Editors are Oleg Burdakov of Linköping University, Sweden, and Andreas Griewank of Humboldt University Berlin, Germany. The Journal is available to individual accredited members of EUROPT at a preferential rate of **GB £60/US \$100** per annual volume. For further information, please visit www.informaworld.com/oms. To subscribe, please visit www.informaworld.com/oms.

Online access is offered on a single user licence, which warrants that the online edition is for the private use of the individual member, that it will be accessed via a private or home telephone line, and that it will not be networked to any other site, nor posted to a library site, nor in any way used to substitute for an existing or potential library subscription.

Society members who wish to take advantage of this offer should either subscribe online via the 'news and offers' link above on the Journal's website, or write to the following address, stating that they are members of EUROPT and that the subscription is for their personal use only:

Zoe Sternberg

Taylor & Francis, 4 Park Square, Milton Park, Abingdon, Oxon OX14 4RN, UK

Email: zoe.sternberg@tandf.co.uk.

Call for Papers on Methodology for Societal Complexity:

7th International Conference on Social Science Methodology

Naples, Italy, RC33 September 1-5, 2008, http://www.rc332008.unina.it/

The stream of methodology of societal complexity consists of:

Session I: Societal complexity and Safety

Session II: Societal complexity and Sustainable Development

Session III: Societal complexity and Healthcare We welcome contributions of methodology of societal complexity.

Please send the abstract before February 17, 2008 to Dorien J. DeTombe DeTombe@nosmo.nl March 31, 2008 is abstract acceptance date

Fees:

RC33-Members 165 €
RC33-Non members 195 €
Students 105 €
Participants from countries in transition 105 €
Non Academic 205 €
Late registrants (May, 10^{th}) $+ 40 \in$ Conference Dinner 50 €

For session info, see http://www.geocities.com/doriendetombe/DeTombe2008RC33.html

For general information of the conference please look at http://www.rc332008.unina.it/ or contact the main organizer Simona Balbi Simona.Balbi@unina.it/ or contact the main

Join the special session of Methodology for Societal Complexity and Healthcare, Global Safety and Sustainable Development

The sessions of Complex Societal Problems include all kinds of methodology and tools that can be applied for analyzing, structuring, guiding and evaluating Complex Societal Problems.

The Scientific Research Society of Methodology for Societal Complexity focuses on methods and tools for handling complex societal problems.

Complex societal problems are policy problems often mentioned in the daily news paper, such as difficulties in the Agricultural-industry (Mad-Cow disease, BSE; Foot- and Mouth disease; Fowl Plague, Bird flu), the issues of transportation, the healthcare problems (Malaria, HIV/Aids, Sars, flu) and the Water problems like flood and pollution, global safety such as terrorism and immigration issues, and disasters like hurricanes and earth quakes.

Complex societal problems are unstructured, dynamical and constantly changing and have a large impact on society on macro, meso and on micro level. Although many of these issues have a different cause, they have so much in common that they can be approached in the same way.

Handling complex societal problems needs a special interdisciplinary approach. The content knowledge comes from content experts. The process knowledge comes from facilitators. The attention of the research group is on the methods and tools facilitators need for supporting these kinds of problems. The facilitators use methods specially created for the field of societal problems combined with methods and insights derived from their original field like medicine, law, economics, societal sciences, methodology, mathematics, computer sciences, technology, engineering sciences, chaos theory and operational research.

Other activities organized by the International Research Society on Methodology of Societal Complexity. see http://www.geocities.com/doriendetombe/detombeagendas.html

Call for Papers: XIV Latin-Iberoamerican Congress on Operations Research (CLAIO 2008)

Cartagena de Indias, Colombia, 9–12 September, 2008 www.socio.org.co/CLAIO2008/index_eng.php

Cartagena de Indias is a popular tourist destination. Its downtown district features an impressive display of Spanish colonial architecture. This area was designated a UNESCO World Heritage Site. CLAIO 2008 is sponsored by the Latin-Ibero American Association of Operations Research (ALIO), who has the support of the International Federation of Operational Research Societies (IFORS). The conference will be hosted by the Colombian Society of Operations Research (SOCIO) and it is organized by four Colombian universities: Universidad EAFIT, Universidad del Norte, Universidad Tecnológica de Bolívar and Politécnico Grancolombiano Institución Universitaria.

CLAIO 2008 invites submissions in all areas of Operations Research. The conference is aimed at providing a platform where significant theoretical contributions as well as insightful new applications will share the stage. To achieve this goal, accepted submissions will be jointly classified in "clusters" (based upon methodological and analytical techniques or application domains) and "workshops" (emphasizing practitioners' insight and experience). It is expected that this two-fold classification will enable a more lively interaction between academics, practitioners from various industries and recognized suppliers of OR-based technologies.

The preliminary list of clusters include: data mining and machine learning, multi-criteria decision making, optimization theory (semi definite programming, global optimization, stochastic programming, integer programming), applications in the process industry, telecommunications, transportation, energy markets, health systems; queuing systems, dynamic games, financial engineering and risk management. The preliminary list of workshops include: OR applications in logistics and supply chain management, OR applications in urban planning, OR education, financial engineering, energy markets, OR applications in homeland security.

Contributed sessions in subject areas not covered by any of the conference's clusters and/or workshops are welcome (instructions on how to submit a contributed session are available at the conference's webpage).

Submissions will be in the form of extended abstracts (max. 3 page length). These should be formatted according to instructions (<u>word format</u> or <u>LaTex format</u>) and should be submitted electronically as a PDF file at http://www.easychair.org/conferences/?conf=CLAIO_2008. The official languages of CLAIO 2008 are: Spanish, Portuguese and English. Special issues dedicated to CLAIO 2008 will be published by Annals of Operations Research and the Journal of Intelligent Manufacturing.

Deadlines:

- Submission of invited session, February 28, 2008
- Submission of the extended abstracts is March 31, 2008
- Final decisions will be notified by May 15, 2008 and final program will be published June 1, 2008

Call for Papers: International Workshop on Operations Research Madrid, Spain, 5-7 June, 2008, http://www.iwor.net

The conference will be organized in honour of Prof Laureano F. Escudero. He is a leading figure in several Operations Research fields, having made seminal contributions in combinatorial and integer programming, decision support models and stochastic programming. During the last 30 years, his application fields have been strategic and production planning modelling and logistics for the energy, water resources and manufacturing sectors. This conference is intended to be a tribute to the outstanding professional and scientific career in Operations Research.

Important dates:

Abstract submission deadline: February 15, 2008. Early registration deadline: March 15, 2008

Call for Papers: 26th International Conference Mathematical Methods in Economics 2008, September 17 - 19, 2008, Liberec, Czech Republic, http://hfis.tul.cz/mme

The conference "Mathematical Methods in Economics" is a traditional meeting of professionals from universities and business who are interested in the theory and applications of operations research and econometrics.

Important dates:

Registration and extended abstract (15 to 17 lines) in Word: April 18, 2008

Full version of paper in Word: **May 5, 2008** Deadline for payments: **May, 30, 2008**

You can find continuously updated information about the conference, the registration form and instructions for the authors on the website: http://hfis.tul.cz/mme



EURO Working Group on OR in Computational Biology. Bioinformatics and Medicine



Association of European OR Societies



BIOPTRAIN



Koç University



Technology

Institute of
Computing Science
Poznan University of

Institute of
Applied
Mathematics,
METU



Istituto di Analis dei Sistemi ed Informatica "Antonio Ruberti"- CNR

EURO-CBBM Conference on Computational Biology, Bioinformatics and Medicine

Rome, Italy, September 15-17, 2008 http://euro-cbbm.ku.edu.tr/RomeConference/homepage.htm

Important Dates

- Deadline for abstract submission:

May 15, 2008

- Notification of acceptance / Preliminary program available: July 1, 2008
- Deadline for early registration: July 15, 2008
- Conference: September 15-17, 2008

Abstract submission

Abstracts of no longer than 500 words are being accepted until May 15, 2008. You can submit your abstracts at http://euro-cbbm.ku.edu.tr/RomeConference/homepage.htm.

For further information, see the previous Newsletter!

Program Committee

Paola Bertolazzi (Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti"- CNR)
Jacek Blazewicz (Institute of Computing Science, Poznan University of Technology)
Jon Garibaldi (University of Nottingham)

Ceyda Oguz (Koç University) Metin Turkay (Koç University)

Gerhard Wilhelm Weber (Institute of Applied Mathematics, METU)

EUROPT has become a co-sponsor of this event.

Call for Papers: Special issue on Optimization and Dynamics in Finance

The past ten years have seen a rapid development and innovation of optimization and dynamics technology in finance engineering. Optimization and control methodologies have played a key role in modeling and computation in finance research and practice. Meanwhile, new problems and challenges arising in finance practice provide good research opportunities to optimization.

This special issue will focus on topics that are equally important in both financial engineering and theory of optimization and dynamics. It will present some important recent development of the analysis, modeling for decision-making and risk control in financial engineering regarding on theory, methodology, and applications. The topics of the special issue include:

- (i) Risk management and control
- (ii) Optimization applications in finance
- (iii) Portfolio optimization
- (iv) Empirical analysis and modeling in finance

A standard DCDIS-B peer-review process will be organized for each of the papers received to guarantee that the special issue is of normal DCDIS-B quality. All papers should be submitted by e-mail to any of the following four Guest-Editors:

Prof. Xiaoling Sun, Dr Shushang Zhu

School of Management, Fudan University Shanghai, P. R. China

Email: xls@fudan.edu.cn, ssz@fudan.edu.cn

Prof. Zhongfei Li

Lingnan College, Sun Yat-Sen University Guangzhou, P. R. China

Email: Inslzf@mail.sysu.edu.cn

Prof. Dr. Gerhard-Wilhelm Weber

Institute of Applied Mathematics Middle East Technical University (METU, ODTÜ) Ankara, Turkey

Email: gweber@metu.edu.tr

Important Dates:

February 1, 2008: Deadline for receiving the title and the names of the authors of the papers July 1, 2008: Deadline for submitting the full papers.

Author Instructions: Authors may use the guidelines and LaTex style files in the website of DCDIS-B for preparing the submission: http://monotone.uwaterloo.ca/~journal/DCDIS_B/index.html

Call for Papers: Special Issue in IJMMS

International Journal of Mechatronics and Manufacturing Systems (IJMMS) is going to publish a Special Issue on: "Optimisation Techniques in Manufacturing Processes" with Assistant Professor Shubhabrata Datta, Professor Nirupam Chakraborti and Professor J. Paulo Davim acting Guest Editors.

The last date of submission of paper is **30 September 2008.** For further details, see http://www.inderscience.com/browse/callpaper.php?callID=739

Call for Papers: 18th Workshop on Discrete Optimization May 18 - 21, 2008, Königstein http://www.math.tu-dresden.de/%7Ecapad/WDO_2008/

This workshop will continue the tradition of biannual workshops on discrete optimization and the scientific cooperation with universities in Eastern Europe. Talks on structures and algorithms, on open questions and on applications of discrete optimization are welcome. The workshop will take place in Königstein. This is a small town within the attractive area of Saxon Switzerland south-east of Dresden. The number of participants is restricted to about 25-30.

If you are interested in attending the workshop preregister informally. To this end, please send an e-mail to gleb.belov@tu-dresden.de containing the following information:

- 1. your last and first name;
- 2. affiliation;
- 3. postal and e-mail addresses;
- 4. the topic of your presentation, if you like to give one.

Participants are asked to provide an abstract till **February 29**. For further details, **see http://www.math.tu-dresden.de/%7Ecapad/WDO_2008/.**

CALL FOR NOMINATIONS: FELIX KLEIN PRIZE

The prize, established in 1999 by the EMS and the endowing organisation, the Institute for Industrial Mathematics in Kaiserslautern, is awarded to a young scientist or a small group of young scientists (normally under the age of 38) for using sophisticated mathematical methods to solve a concrete and difficult industrial problem.

NOMINATION FOR THE AWARD

There are no restrictions on eligibility other than those specified in the Principal Guidelines. The Prize Committee is responsible for solicitation and evaluation of nominations. Nominations may be made by anyone, including members of the Prize Committee. It is the responsibility of the nominator to provide all relevant information to the Prize Committee, including a resume and documentation of the benefit to industry and the mathematical methods used. The Prize Committee will report its nomination to the EMS President at least three months before the date of the award. The prize is awarded to a single person or to a small group and cannot be split.

DESCRIPTION OF THE AWARD

The award comprises a certificate containing the citation and a cash prize, of EUR 5000.

AWARD PRESENTATION

The prize is presented every four years at the European Congress of Mathematics. The President of the EMS presents the award. The recipient is invited to present his or her work at the conference.

PRIZE HISTORY

The first prize has been awarded to David C. Dobson (USA) in the year 2000 during 3ECM in Barcelona. The prize was not awarded in 2004.

PRIZE FUND

The endowing Institute for Industrial Mathematics in Kaiserslautern is responsible for managing the prize fund as well as its administration.

DEADLINE FOR SUBMISSION

Nominations for the prize must reach the Helsinki office of the EMS at the e-mail address ulmanen@cc.helsinki.fi no later than 1st February 2008. Please use the text "Felix Klein Prize" in the subject field of the e-mail. The complete nomination must be submitted in pdf format.

New Book Announcement: Lectures on Stochastic Programming by A. Shapiro and A. Ruszczynski

The book can be downloaded from: http://www2.isye.gatech.edu/people/faculty/Alex_Shapiro/SPbook.pdf.

New Book Announcement: Set-Valued Mappings and Enlargements of Monotone Operators by R. S. Burachik and A. N. lusem

Series: Springer Optimization and Its Applications, Vol. 8, November 2007, Approx. 300 pages, Hardcover, ISBN: 978-0-387-69755-0.

Set-valued analysis is an essential tool for the mathematical formulation of many real-life situations, e.g., equilibrium theory in mathematical economics. This work offers the first comprehensive treatment in book form of the fairly new subdiscipline of enlargements of maximal monotone operators, including several important new results in the field. The first chapters provide a self-contained review of the basic notions and fundamental results in set-valued analysis, including set convergence and continuity of set-valued mappings together with many important results in infinite-dimensional convex analysis, leading to the classical fixed point results due to Ekeland, Caristi and Kakutani. Next, an in-depth introduction to monotone operators is developed, emphasizing results related to maximality of subdifferentials and of sums of monotone operators. Building on this foundational material, the second part of the monograph contains new results (all of them established during the last decade) on the concept of enlargements of monotone operators, with applications to variational inequalities, bundle-type methods, augmented Lagrangian methods, and proximal point algorithms.

This book is addressed to mathematicians, engineers, economists, and researchers interested in acquiring a solid mathematical foundation in topics such as point-to-set operators, variational inequalities, general equilibrium theory, and nonsmooth optimization, among others. Containing extensive exercises and examples throughout the text, the first four chapters of the book can also be used for a one-quarter course in set-valued analysis and maximal monotone operators for graduate students in pure and applied mathematics, mathematical economics, operations research and related areas. The only requisites, besides a minimum level of mathematical maturity, are some basic results of general topology and functional analysis.

Further details: http://www.springer.com/east/home/generic/search/results?SGWID=5-40109-22-173713738-0

New Book Announcement: Two Booklets on Optimization and Optimal Control by J.-B. Hiriart-Urruty (in French)

For further information, see advertisements at http://www.iam.metu.edu.tr/EUROPT/h reportsyeni.html.

News from EURO: Participate in "24 Hours Operations Research"

Initiated by Alexis Tsoukias (former EURO president), Martine Labbé (current EURO president) and Horst W. Hamacher (TU Kaiserslautern) the web site "24 Hours Operations Research " is under construction at http://optimierung.mathematik.uni-kl.de/EURO24OR/

The idea of the site is to show that Operations Research is an area which is relevant for our every-day-life basically every hour of the day. In order to emphasis this point, the web site features a clock clicking through the hours of the day while showing a practical problem and its solution using OR related to this particular time of the day. "Showing" is separated into three parts, where

- the first part is understandable to the general public without much effort,
- the second part contains some deeper information which is, however, accessible to the non-specialist, and
- the third part is devoted to advanced reading including further references, a description of the potential of the specific OR method to other applications, etc.

The goal of the site is to promote Operations Research, in particular

- among high-school students as part of their normal curricula or as special project courses, and
- among political decision makers in order to convince them, that OR is an attractive research area with lots of potential for problem solving deserving its own research directory and research field in the various EU research calls.

In order to make "24 Hours OR" a success, we need your help, since it lives from its contributions from all EURO member countries:

Please send us a description of your favourite OR application and your solution approach. Describe your project according to the 3-stage process indicated above and outlined in more detail on the web site under the "Propose New Project" button. Since you and your institution will be shown as author and contact of your contributed project, this will help to propagate your work and get in contact with researchers, educators and industry interested in the OR tool presented in your description.

Our goal is to have the clock filled with 24 projects within the next couple of months. After that we will keep on accepting project descriptions and maintain additionally an archive of projects which had been featured before. Our ambition is that every member country of EURO is represented at "24 Hours OR".

Please feel free to contact us, if you have any questions. We are looking forward to the presentation of your "24 Hours OR" project.

Horst W. Hamacher, Akin Tanatmis Department of Mathematics, University of Kaiserslautern, Germany {Hamacher,tanatmis}@mathematik.uni-kl.de

Scholarships: The Google Europe Anita Borg Memorial Scholarship 2008

Dr. Anita Borg (1949 - 2003) devoted her adult life to revolutionising the way we think about technology and dismantling barriers that keep women and minorities from entering computing and technology fields. Her combination of technical expertise and fearless vision continues to inspire and motivate countless women to become active participants and leaders in creating technology. As part of Google's ongoing commitment to furthering Anita's vision, we are pleased to announce the Google Europe Anita Borg Memorial Scholarship 2008. Through the scholarship, we aim to encourage women to excel in computing and technology, and become active role models and leaders.

Multiple scholarships will be awarded based on the strength of candidates' academic background and demonstrated leadership. A group of female Bachelor's, Master's, and PhD student finalists will be chosen from the applicant pool. The scholarship recipients, selected from the finalists, will each receive a €5,000 (or equivalent) scholarship for the 2008/2009 academic year. Remaining finalists will receive €1,000 each.

In June 2008, all finalists will be invited to visit Google's European Engineering Centre in Zurich for a networking retreat. It will include workshops with a series of speakers, panels, breakout sessions and social activities, and will provide an opportunity for all finalists to meet and share their experiences.

Further information: http://www.google.com/anitaborg-europe/

Some Words from the Newsletter Editor

Dear reader.

It is time to say: Happy New Year 2008! I hope we can continue fruitful collaboration with the growing number of members in EUROPT! Again, many thanks for the material sent for this newsletter; I wish to thank Gerhard-Wilhelm Weber, in particular. Material for the next newsletter is most welcome. Please, send me email with 'EUROPT Newsletter' as the subject!

For further optimization-related information, you may visit http://optnet.itwm.fhg.de/opt-net/, the Opt-Net electronic forum for the optimization community organized by SIGOPT under the auspices of the Deutsche Mathematiker Vereinigung (DMV). Remember that EUROPT website includes information about conferences at http://www.iam.metu.edu.tr/EUROPT/h_scientificyeni.html, among many other useful links. Let me remind you that I have collected links related to conferences in operations research and optimization at http://www.mit.jvu.fi/miettine/lista.html#Conferences.

EUROPT welcomes new members. Becoming a member is easy: fill the form at http://anadolu.lib.metu.edu.tr/EUROPT/ newuser.php (note that EUROPT has no membership fees!).

With best wishes, Kaisa Miettinen kaisa.miettinen at jyu.fi

EUROPT NEWSLETTER Editor-in-Chief: Kaisa Miettinen

Co-workers: Gerhard-Wilhelm Weber and Basak Akteke Ozturk