



EUROPT

Activities of
EUROPT
EURO Working Group on Continuous Optimization
In 2007 and 2008

1 Introduction

EUROPT, Continuous Optimization Working Group of EURO (EUROPT WG) has been founded at IPM2000 Workshop in Budapest, Hungary, July 2000. That workshop was a satellite event of the EURO-XVII Conference. At these days, we are about 50 founding members. In the sequel of our first workshop, EUROPT had three further workshops: Smooth and Non-smooth Optimization, Theory and Applications, in Rotterdam, The Netherlands, July 2001, before EURO XVIII, then Workshop on Advances in Continuous Optimization, in Istanbul, Turkey, July 2003, before the 5th EURO/INFORMS Joint International Meeting 2003, and Workshop on Challenges of Continuous Optimization in Theory and Applications, July 2004, before EURO XX. Still in July 2004, we enjoyed EURO Summer Institute “Optimization and Data Mining” in Ankara, while in June-July 2005, we celebrated 17th EURO Mini Conference “Continuous Optimization in the Industry” in Pécs, Hungary. In Ankara, November 2005, we were co-organizers of “Workshop on Sustainable Living in Rural Areas of Turkey” and of “Spatial Data Mining Workshop” (ISPRS 2005). In 2006, our workshop “Advances in Continuous Optimization” and a very strong contribution to EURO XXI 2006, both in Reykjavik, Iceland, and EURO Summer Institute 2006 “Optimization Challenges in Engineering: Methods, Software and Applications”, Wittenberg, Germany, in the months August and September, belonged to the special enterprises of our EURO working group. EUROPT proposed EURO Working Groups “Operational Research for Development” and “Computational Biology, Bioinformatics and Medicine”; both became accepted by EURO Executive Committee, and with our friends and new leaders of the two groups we founded during EURO XXI 2006. We gave support for Workshop on “Sustainable Living in Rural Areas of Turkey” held in March 2005 and April 2006, for the 1st Summer School “Achievements and Applications of Contemporary Informatics, Mathematics and Physics” in Kiev, Ukraine, August 2006, and for 5th Ballarat Workshop on Global and Non-smooth Optimization: Theory, Methods and Applications, in Ballarat, Australia, November 2006. In the year 2007, our Joint EUROPT-OMS Conference “Advances in Continuous Optimization” and a very strong contribution to EURO XXII 2007, both celebrated in Prague, Czech Republic, belonged to our core activities. But we also served as a co-organizing institution of the PhD Workshop in OR for Development of EURO WG OR for Development, and stood at the side of EURO CBBM Workshop – Workshop on OR in Computational Biology, Bioinformatics and Medicine;

both of these events took place in Prague, too. Besides of our EURO conference, we gave our help to the other renowned conference series, INFORM International. All the aforementioned meetings took place in July 2007. What is more, again, we served to three event series: International Symposium on Health Informatics and Bioinformatics (HIBIT), Turkey 07, in Antalya, Turkey, in April-May 2007, also Workshop on Sustainable Living at Turkish Rural Countryside, Ankara, Turkey, in June, and 2nd Summer School “Achievements and Applications of Contemporary Informatics, Mathematics and Physics” in Kiev, Ukraine, in August 2007. Further activities inside of EUROPT, for EURO, the national OR Societies in EURO, to other EURO Working Groups and the entire community of nations is explained below and completes the spectrum of our engagement. Now, at the end of March 2008, our group EUROPT has *more than 920 members*. Please find many interesting data, information and invitations at our EUROPT *homepage* <http://www.iam.metu.edu.tr/EUROPT/>. This report surveys what we did in 2007 (Section 2) and announces our activities in 2008 (Section 3).

2 Activities in 2007

In 2007, there was one big and one smaller highlight events which EUROPT co-organized:

- (a) *EURO XXII 2007, 22nd European Conference on Operational Research*, Prague, Czech Republic, July 8-11, 2007;
- (b) *Joint EUROPT-OMS Conference - 2nd Conference on Optimization Methods & Software - 6th EUROPT Workshop “Advances in Continuous Optimization”*, Prague, Czech Republic, July 4–7, 2007;

for providing our friends well internationally, we also supported the big conference

- (c) *INFORMS International Puerto Rico*, Puerto Rico, July 8–11, 2007;

and the events

- (d) *International Symposium on Health-Informatics and Bioinformatics*, Antalya, Turkey, April 30 – May 2, 2007;
- (e) *PhD Workshop in OR for Development: EURO Working Group “OR for Development”*, Prague, Czech Republic, July 7, 2007;
- (f) *Workshop on Sustainable Living at Turkish Rural Countryside*, Ankara, Turkey, June 8, 2007;
- (g) *2nd Summer School Achievements and Applications of Contemporary Informatics, Mathematics and Physics*, Kiev, Ukraine, August 6-20, 2007;
- (h) *EURO-CBBM Workshop on OR in Computational Biology, Bioinformatics, and Medicine*, Prague, Czech Republic, July 7, 2007;

and

- (i) *Seminar on Applied Mathematics in Life and Human Sciences and Economy*

(weekly seminar) METU, Ankara;

furthermore, it appeared the

(j) *EJOR Special Issue “Challenges of Continuous Optimization in Theory and Applications”*;

we will be publishing

(k) *CEJOR Special Issue “Advances in Continuous Optimization”*,

and the following issues are in finalization:

(l) *MMOR Special Issue “Special Issue of MMOR Devoted to ESI 2006”*,

(m) *OMS Special Issue at the Occasion of Joint EUROPT-OMS Conference*,

(n) *Special Issue “Continuous Optimization in Finance” of the Journal Optimization*.

Furthermore, we give our best to support two special issues at the occasion of EURO XXI:

(o) *EJOR Special Issue “OR for Better Management of Sustainable Development”* and the *CEJOR Special Issue at the Occasion of EURO XXI 2006*,

and we give the two new

(p) help for *other EURO Working Groups* and their Activities,

and for the research areas

(q) *Continuous Optimization in Finance, Data Mining, Dynamical Systems, Inverse Problems and Optimal Control*.

Finally, we spend care about

(r) *EUROPT Homepage*,

(s) *EUROPT E-Newsletter* and

(t) *Managing Board of EUROPT*,

and we introduced and appointed our

(u) *EUROPT Fellow 2007*,

(v) *Support to Collaboration and Friendship between National OR Societies of EURO*.

Let us present some details:

2.a EURO XXII 2007

The 22nd European Conference on Operational Research EURO XXII has been organized by the Czech Society for Operational Research in cooperation with the University of Economics, Prague (<http://euro2007.vse.cz/>). The Conference was held in the campus of the University of Economics which is situated very close to the Prague historical centre. EURO conference series belongs to the most prestigious and renowned ones in the world; EURO is The Association of European OR Societies (<http://www.euro-online.org/>). The Program and Organizing Committees prepared a high quality academic program of the conference. EURO XXII with its about 2000 *participants* was the biggest EURO conference which ever took place! It may be pointed out that *continuous optimization* has more than ever become accepted to be a “key technology” in modern OR with its theory, methods and applications in areas such as economics, high technology, science, the sectors of finance, energy, environment and development. Indeed, *EUROPT* and members of *EUROPT* served in the organization of the entire conference and were as stream organizers responsible for 30-40 *streams*!

Prague with its astonishing architecture, history and cultural heritage, numerous theatres, concerts, cosy restaurants and pubs attracts an increasing number of visitors every year. In 2007, Prague was a capital of OR and continuous optimization!

Homepage: <http://euro2007.vse.cz/>.

Programme Committee:

- Ulrike Leopold-Wildburger (chair: Austria),
- Rainer Burkard (Austria),
- Dimitris Despotis (Greece),
- Josef Jablonsky (Czech Republic),
- Tuula Kinnunen (Finland),
- Hans-Jakob Luethi (Switzerland),
- Gautam Mitra (UK),
- Erwin Pesch (Germany),
- Roman Slowinski (Poland),
- Jacques Teghem (Belgium),
- Tamás Terlaky (Canada) and
- Gerhard Woeginger (The Netherlands).

Organizing Committee:

- Josef Jablonsky (chair, Czech Republic),
- Gülay Barbarosoğlu (Turkey),
- Martin Dlouhy (Czech Republic),
- Jan Fabry (Czech Republic),
- Michal Fendek (Slovakia),
- Petr Fiala (Czech Republic),
- Jana Hanclova (Czech Republic),
- Luka Neralic (Croatia),
- Jan Pelikan (Czech Republic),
- Miroslav Singer (Czech Republic),
- Tomas Subrt (Czech Republic),
- Gerhard-Wilhelm Weber (Turkey) and
- Karel Zimmermann, Czech Republic

Conference Topics:

The organizers invited all researchers, academicians, practitioners, as well as students interested in all branches of operational research, mathematical modeling and economic analyses to participate at the conference and to presentations in the following areas:

- Continuous Optimization & Control,
- DEA and Performance Measurement,
- Decision Analysis & Decision Support Systems,
- Combinatorial Optimization,
- Graphs & Networks, Scheduling & Location,
- Energy & Environment,
- Financial Modeling & Risk Management,
- Soft-computing & Artificial Intelligence,
- Game Theory & Mathematical Economics,
- Logistics & Transportation & Traffic,
- Metaheuristics,
- Multiple Criteria Decision Making and Optimization,
- OR Education, History & Ethics,
- OR in Health & Life Sciences,
- OR in Natural Resources,
- OR in Industries,
- Production Management & Supply Chain Management,
- Revenue Management,
- Simulation & Stochastic Programming and Modeling,
- Software for OR/Modeling Languages and
- Dynamic Systems.

Sessions:

Invited and contributed papers were organized in parallel sessions of 90 minutes, with three or four papers in each session. Invited and contributed sessions were generally a part of Conference main streams. Their lists together with responsible organizers are presented on http://euro2007.vse.cz/accepted_streams.html.

Prizes and Awards:

During the EURO XXII conference the following prizes will be awarded:

The EURO Gold Medal,
The EURO Excellence in Practice Award,
The EURO Management Science Strategic Innovation Prize and
The EURO Doctoral Dissertation Award.

Contribution of EUROPT:

This contribution consists of a *great number of streams, sessions, tutorials* prepared by EUROPT and his members. Indeed, there are **30-40 streams** in preparation by us and our friends, on areas of continuous optimization, optimal control, dynamical systems, data mining, finance, etc. – but also for the fields of computational biology, bioinformatics, medicine, represented by our two new EURO WGs. Also among the Main Stream Organizers, a number of EUROPT members can be found.

For closer information please cf. <http://euro2007.vse.cz/> and the *Newsletters & Letters* at our EUROPT homepage <http://www.iam.metu.edu.tr/EUROPT/>.

Satellite Events:

There are some scientific events in preparation already, organized by EURO Working Groups and their friends:

A Joint EUROPT-OMS Meeting:

2nd Conference on Optimization Methods & Software and
6th EUROPT Workshop "Advances in Continuous Optimization",
Prague, Czech Republic, July 4-7, 2007

<http://cio.umh.es/europt-oms/>,

this event is supported by SIAM, SIAG/OPT, INFORMS Optimization Society and other organizations and institutions,

PhD Workshop in OR for Development - EURO Working Group "OR for Development",
Prague, Czech Republic, July 7, 2007

<http://euro2007.vse.cz/wordc.doc>,

EURO-CBBM Workshop –

Workshop on OR in Computational Biology, Bioinformatics and Medicine,
Prague, Czech Republic, July 8, 2007

<http://euro2007.vse.cz/cbbm.pdf>.

We will come to these satellite events of us and our members now.

2.b Joint EUROPT-OMS Conference – 2nd Conference on Optimization, Methods & Software and 6th EUROPT Workshop “Advances in Continuous Optimization”

This international conference is the first joint Meeting organized by the *EURO Working Group on Continuous Optimization (EUROPT)*, (<http://www.iam.metu.edu.tr/EUROPT/>) of the *Association of European Operational Research Societies* (<http://www.euro-online.org/>) and the journal *Optimization Methods and Software* (<http://www.tandf.co.uk/journals/titles/10556788.html>). It has been organized in cooperation with *EURO* (<http://www.euro-online.org/>), *SIAM* (<http://www.siam.org/>), *SIAM Activity Group on Optimization* (<http://www-unix.mcs.anl.gov/~leyffer/siagopt/>) and *INFORMS Optimization Society* (<http://optimization.society.informs.org/>). The conference was held in Prague in the period July 4-7, 2007, prior to the 22nd European Conference on Operational Research (EURO XXII 2007; <http://euro2007.vse.cz/>) and the 6th International Congress on Industrial and Applied Mathematics (ICIAM 2007; <http://www.iciam07.ch/index>).

The homepage address of the Joint OMS Conference is <http://cio.umh.es/europt-oms/>. The homepage sides were hosted at the *Operations Research Center at Miguel Hernández University, Elche, Spain* (<http://cio.umh.es/>) in close collaboration with the *University of Alicante* (<http://www.ua.es/en/index.html>).

Indeed, it is the hospitality and efforts of our Czech friends from both the *University of Economics, Prague* (<http://www.vse.cz/>) and the *University of Hradec Kralove* (<http://www.uhk.cz/>) which made this community possible and allowed to hosts so many friends from all over the world. Indeed, we had about **150 presentations** and about **160 participants**. For the final program we refer to <http://cio.umh.es/europt-oms/Program%20EUROPT-OMS%20rooms.pdf>. Except for EURO conferences, we never had so many participants at a EUROPT event ever since! It may also be recalled that the EURO

XXII conference was the biggest EURO conference in EURO's history, and that the two new EURO Working Groups "OR for Development" and "OR in Computational Biology, Bioinformatics and Medicine" very successfully prepared and conducted workshops before EURO XXII 2007 (cf.

<http://www2.ing.puc.cl/~fcrespo/eurofdv/conference/homepage.htm> and <http://euro-cbb.ku.edu.tr/conference/homepage.htm>).

This Joint EUROPT-OMS Conference was also the sixth in the series of [the EUROPT Workshops on Advances in Continuous Optimization](#). It continued in the line of EUROPT workshops held: 2000 in Budapest, 2001 in Rotterdam, 2003 in Istanbul, 2004 in Rhodes and 2006 in Reykjavik, of EURO Summer Institutes and EURO Mini Conferences. Differently from former EUROPT workshops (cf. <http://www.iam.metu.edu.tr/EUROPT/>, link: Scientific events) where we focused on continuous optimization and related topics, in this year, by the collaboration with OMS and its scope, also the wide area of discrete optimization was welcome likewise. Indeed, the topics were almost identical to those of the 1st Conference on Optimization Methods and Software (<http://www.cityu.edu.hk/ma/conference/oms2002.html>).

The conference took place in the campus of the VSE (in Czech: Vysoka skola ekonomicka, in English: University of Economics), in the Rajska building. The VSE campus is the same as for XXII EURO Conference. The university campus is located within 15 minutes walking distance of the historical centre of Prague.

Actually, there was a second local, "host" kind of university, namely, the *University of Hradec Kralove* in Czech Republic, which served very much for the common success.

The conference aimed to review and discuss recent advances and promising research trends in continuous and discrete optimization theory, methods, applications and software development. Its **Topics** included

- Linear and Nonlinear Optimization,
- Integer and Combinatorial Optimization,
- Convex and Non-smooth Optimization,
- Global Optimization,
- Semi-definite Programming,
- Semi-infinite Programming,
- Multi-objective Optimization,
- Stochastic Optimization,
- Complementarity and Variational Inequality Problems,
- Derivative-free Optimization,
- Network Optimization,
- Scheduling Problems,
- Optimization in Technological, Bio- and Social Systems,
- Financial Optimization,
- Optimal Control,
- Automatic Differentiation and
- Optimization Software.

We organizers could gain a list of very distinguished **Invited Speakers**: who with their presentations draw an excellent portrait of modern optimization theory:

- Frédéric Bonnans (INRIA, France):
“*Local Analysis of Optimal Control Problems*”,
- Yury Evtushenko (Academy of Sciences, Russia):
“*Automatic Differentiation and Second Order Derivatives*”,
- Komei Fukuda (EPF Lausanne and ETH Zurich, Switzerland):
“*Introduction to Polyhedral Computation*”,
- Dorit Hochbaum (University of California, Berkeley, USA):
“*Image Segmentation with Optimization Techniques Used for Medical Imaging*”,
- Tibor Illés (University of Strathclyde, Glasgow, Scotland):
“*Linear Complementarity Problems: Matrix Classes, Algorithms and EP-theorems*”,
- Michal Kocvara (University of Birmingham, GB):
“*Optimization of Mechanical Structures and Semi-definite Programming*”,
- Adrian Lewis (Cornell University, USA):
“*Alternating Projections Revisited*”,
- Carlo Mannino (University of Rome, Italy):
“*Integer Programming Approaches to Wireless Network Design*”,
- Alexander Martin (Darmstadt University of Technology, Germany):
“*Mixed Integer Programs and Partial Differential Equations on Networks*”,
- Florian Potra (University of Maryland, USA):
“*Interior Point Methods for Complementarity Problems*”,
- Liqun Qi (The Hongkong Polytechnic University, China):
“*Fourth Order Tensors and Their Applications*”,
- Philippe Toint (University of Namur, Belgium):
“*Adaptive cubic overestimation for unconstrained optimization*”,
- Stefan Ulbrich (Darmstadt University of Technology, Germany):
“*Recent Developments in PDE-constrained Optimization*”,
- Stephen Wright (University of Wisconsin, USA):
“*Gradient-Projection Algorithms for Signal and Image Processing*”,
- Yinyu Ye (Stanford University, USA):
“*Further Relaxations of the SDP Approach to Sensor Network Localization*”, and
- Ya-xiang Yuan (Academy of Sciences, China):
“*Q-linear Convergence of the Steepest Descent Method*”.

The boards of all the **Conference Organizers** well prepared and conducted our scientific and social event:

Conference Chairs:

- Oleg Burdakov (Linköping University, Sweden),
- Florian Jarre (University of Düsseldorf, Germany) and
- Karel Zimmermann (Charles University, Prague, Czech Republic).

Program Committee:

- Gerhard-Wilhelm Weber (chair; Middle East Technical University, Turkey), representative of SIAM and EUROPT,
- Mihai Anitescu (Argonne National Laboratory, USA),
- Adil Bagirov (University of Ballarat, Australia),
- Frédéric Bonnans (INRIA, France),
- Bruce Christianson (University of Hertfordshire, GB),
- Gustav Feichinger (Vienna University of Technology, Austria),

- Masao Fukushima (Kyoto University, Japan),
- Andreas Griewank (Humboldt University, Germany),
- Luigi Grippo (University of Rome, Italy),
- Johannes Jahn (University of Erlangen-Nuremberg, Germany),
- Joaquim Júdice (University of Coimbra, Portugal),
- Kathrin Klamroth (University of Erlangen-Nuremberg, Germany),
- Laszlo Ladanyi (IBM, USA),
- Berç Rustem (Imperial College, UK),
- Jan J. Rückmann (University of Birmingham, GB),
- Tamás Terlaky (McMaster University, Canada),
- Jie Sun (National University of Singapore, Singapore) and
- Michael Ulbrich (Munich University of Technology, Germany).

Organizing Committee:

- Marco A. López (Chair; Alicante University, Spain),
- Ömer Akin (TOBB University of Economics and Technology, Ankara, Turkey),
- María J. Cánovas (Universidad Miguel Hernández, Elche, Spain),
- Mirjam Dür (Darmstadt University of Technology, Germany),
- Bülent Karasözen (Middle East Technical University, Ankara, Turkey),
- Kaisa Miettinen (Helsinki School of Economics, Finland),
- Juan Parra (Universidad Miguel Hernández, Elche, Spain),
- Stefan W. Pickl (Universitaet der Bundeswehr, Munich, Germany),
- Leonidas Sakalauskas (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Oliver Stein (Karlsruhe University, Germany),
- Javier Toledo (Universidad Miguel Hernández, Elche, Spain), Webmaster,
- Metin Türkay (Koc University, Istanbul, Turkey),
- Aysun Tezel (Middle East Technical University, Ankara, Turkey),
- Emre Alper Yilderim (Bilkent University, Ankara, Turkey) and
- Jian-Zhong Zhang (Chinese University of Hong Kong, China).

Local Organizing Committee:

- Martin Gavalec (chair; University of Hradec Kralove, Czech Republic),
- Libuse Bazantova (University of Hradec Kralove, Czech Republic),
- Pavel Cech (University of Hradec Kralove, Czech Republic),
- Jan Fabry (University of Economics, Czech Republic),
- David Havrlant (University of Economics, Czech Republic),
- Josef Jablonsky (University of Economics, Czech Republic),
- Karel Mls (University of Hradec Kralove, Czech Republic),
- Pavel Prazak (University of Hradec Kralove, Czech Republic),
- Hana Sramkova (University of Hradec Kralove, Czech Republic) and
- Veronika Skocdoplova (University of Economics, Czech Republic).

The ***Session Organization consisted*** of the invited sessions and contributed sessions, all of them places in up to five parallel sessions in the afternoons. In the mornings, plenary sessions with the presentations of the 16 invited speakers took place.

Conference Publications:

Papers presented at the conference will be considered for peer-reviewed publication in a

special issue of the journal *Optimization Methods and Software* (OMS; <http://www.tandf.co.uk/journals/titles/10556788.html>). The deadline for submission is September 30, 2007. The papers should be submitted to any of the two Guest-Editors:

- *Regina S. Burachik* (University of South Australia, Adelaide, Australia),
- *Michal Kocvara* (University of Birmingham, UK).

The conference organizers thank very much to all out *Sponsors and Partners*:

- EURO,
- Taylor & Francis,
- Pattern Analysis, Statistical Modeling and Computational Learning (PASCAL),
- SIAM,
- SIAG/OPT,
- INFORMS Optimization Society,
- Maximum Software, London,
- University of Economics (Prague, Czech Republic),
- University of Hradec Kralove (Czech Republic),
- Alicante University (Spain),
- Middle East Technical University, especially, Institute of Applied Mathematics (Ankara, Turkey),
- Universidad Miguel Hernandez de Elche (Spain) and
- TOBB University of Economics and Technology (Ankara, Turkey).

Also EUROPT and an anonymous donator served for sponsorship. Let us now come to our

Social Events:

The *Welcome Reception* (July 3) and the *Conference Dinner* (July 6) took place in the University Restaurant of the University of Economics, Prague. In between, another social event of our conference days consisted of a *boat trip on the stream Vltava* (in German: Moldau; July 5). Here, we loved to see the heart of Prague passing by, right on that water which was the motive for the possibly most famous Czech piece of music, composed by Bedrich Smetana. The delicious and rich Czech food, in particular, a glass of refreshing beer, was always provided.

At the occasion of the Conference Dinner, we congratulated and honoured our ***EUROPT Fellow 2007***, *Prof. Dr. Georg Still* from the University of Twente, Enschede, the Netherlands. When handing out to him the Certificate prepared and a good bottle of Moravian wine, we praised all his achievements for our EURO working group. When introducing this group, EUROPT, to the friends present at the dinner, its increased number of members at that time was mentioned, too. Today, ten months after the Prague days, EUROPT's list of participants consists of 900-1000 names.

Please find a report, equipped with photos and the conference poster under http://www.iam.metu.edu.tr/EUROPT/Joint%20EUROPT-OMS%20Conference%20_short_.pdf

2.c INFORMS International Puerto Rico 2007

INFORMS International Puerto Rico Conference took place at July 8-11, 2007, in Rio Grande, Puerto Rico. EUROPT and its members supported this renowned conference and by this contributed to providing many people in the world with OR, especially those, who

cannot come to Prague. This international conference showcased recent advances and promising trends in the theory, methods, applications, and software for operations research and the management sciences.

Homepage: <http://meetings.informs.org/Puertorico2007/>

Confirmed Topics included:

- Analysis for Nation Building,
- Artificial Intelligence,
- Auctions,
- Bellman Continuum,
- Combinatorial Optimization,
- Computational Biology and Informatics,
- CPMS, The Practice Section,
- Data Envelopment Analysis,
- Data Mining,
- Decision Analysis,
- Decision Support Using Weather Predictions,
- Educational Issues,
- Energy, Natural Resources, & and Environment,
- Financial Engineering,
- Health Applications,
- Honoring the Legacy of Peter Hammer,
- Industry-Research Interface,
- Information Systems,
- Life Sciences Facility Delivery Group Project,
- Location Analysis,
- Manufacturing and Service Operations Management,
- Marketing Science,
- Measurement, Analysis, & Improvement of Service Operations,
- Military Applications,
- Minority Issues,
- Optimization - Integer Programming,
- Optimization - Nonlinear Programming: Global & Local,
- Optimization - Stochastic Programming,
- Optimization in Marketing,
- OR and Computing,
- OR & IT Integration,
- OR in Public Health,
- OR in Practice,
- OR in the Americas,
- OR in the Forest Sector,
- OR in the Public Sector,
- OR on the Edge,
- OR in Medicine and Health Care,
- Project Management and Scheduling,
- Quality, Statistics, and Reliability,
- Risk Management,
- Scheduling,
- Services Research,
- Simulation,

- Social Networks,
- Stochastic Programming,
- Supply Chain Optimization and
- Transportation Science and Logistics.

The conference was organized by the *Institute for Operations Research and the Management Sciences* <http://www.informs.org/> in conjunction with the *University of Puerto Rico* <http://www.upr.edu/>.

The homepage also informs about the *Chairs and Committees*. There are a number of *EUROPT* members serving in these committees or as organizers of invited or sponsored *cluster*. At this place we mention the General Chair of the Organizing Committee *Prof. Dr. Karla Hofman* (George Mason University, USA) and the Program Chair of the Program Committee *Prof. Dr. Robin Lougee-Heimer* (IBM, USA).

2.d International Symposium on Health Informatics and Bioinformatics, Turkey '07 – HIBIT'07

HIBIT'07 took place in Belek, Antalya, Turkey, at April 30 – May 2, 2007. *Aims* of this second symposium in the series of HIBIT were to bring together academicians from medical, biological, and IT fields with industry and government for creating synergy and supporting interdisciplinary research and development in the region on the subject. It gained participation from all around the world. High quality research submissions were invited for technical papers describing original unpublished results of theoretical, empirical, conceptual, and experimental work.

Topics of interest include, but are not limited to:

Health Informatics:

- Electronics Health Records and Standards,
- Clinical Informatics and Hospital Information Systems,
- Telemedicine and Mobile Applications,
- Decision Support Systems and Computer Aided Diagnosis,
- Health Informatics (HI) Education,
- Security, Ethics, and Privacy,
- Data Mining and Knowledge Discovery in HI,
- Medical Signal/Image Analysis and Visualization,
- Medical Imaging and Instrumentation,
- Virtual Reality and Simulation and
- Medical Transaction Provision Systems;

Bioinformatics:

- Biomolecular Sequence Analysis,
- Comparative Genomics,
- Biomedical Genome Research,
- Microarray Informatics,
- Protein Expression and Modification,
- Protein Interactions,
- Protein Structure Prediction,
- Biomedical Proteome Research,
- Genetic Networks,

- Systems Biology,
- Text Mining and Information Extraction,
- Evolution and Phylogeny and
- Structural Bioinformatics.

About *Keynote Speakers, Tutorials* going to be given as well as *Sponsors* of HIBIT'07 please visit the

Homepage: <http://hibit.ii.metu.edu.tr/07/index.html>.

There, we also find the *HIBIT'07 Proceedings CD* which can be downloaded.

The homepage further informs about the *Conference Chair and Committees*. There are a number of *EUROPT* member serving in these committees and as presenters.

Please find a small report about HIBIT'07 under <http://www.iam.metu.edu.tr/EUROPT/hibit2007.doc>.

2.e PhD Workshop in OR for Development: EURO Working Group OR for Development

Another important event in Prague, Czech Republic, July 7, 2007 also cosponsored by EUROPT was this annual workshop of our new sister EURO Working Group "OR for Development" (EURO ORD). Please find closer information about this event under <http://www2.ing.puc.cl/~fcrespo/eurofdv/conference/homepage.htm>.

Aim of the Workshop:

The international workshop is being organized by the EURO Working Group on OR for Development directly before the EURO 2007 meeting. The workshop aimed to bring together researchers from a range of countries. It intends to be a forum for the exchange and for the discussion of current research, issues or trends. As well as an opportunity to present current research, there will also be the opportunity of have "research conversations" - which are intensive discussions - with senior academics.

Areas of Interest:

We welcome researchers doing PhDs on any aspect of development, but with a focus on developing countries, i.e., the problem is related to a country defined as low- and middle-income countries in which most people have a lower standard of living with access to fewer goods and services than do most people in high-income countries.

Topics Include:

- Distribution Problem and transportation,
- Infrastructure planning,
- Health care,
- Natural disasters,
- Employment and Migration,
- Good governance,
- Energy and
- Sustainability.

Workshop Committee:

- Leroy White (Chair; University of Bristol, UK),
- Fernando Alexis Crespo Romero (Pontificia Universidad Católica de Chile),
- Antonono Sgalambro (Universita degla Stidi di Napoli Federico II, Italy),
- Marthi Harmse (SASOL, South Africa),
- Gerhard Wilhelm Weber, Middle East Technical University, Turkey)
- Chandra Sekhar Pedamallu (New England Biolabs Inc., Ipswich, MA, USA).

Program:

Please find the program under

<http://www.iam.metu.edu.tr/EUROPT/OR%20for%20Developing%20Countries%20Workshop%207th%20July.pdf>.

This workshop was not the only one by which we from EUROPT in 2007 supported EURO ORD, but also EURO Working Group on Complex Societal Problems, but there was also:

2.f Workshop on Sustainable Living at Turkish Rural Countryside

This workshop took place at IAM of METU, Ankara, at June 8, 2007. It has been the third workshop in this series of events, started in 2005. It has been a joint contribution by Institute of Applied Mathematics (IAM), Middle East Technical University (METU), Computational Biology, Medicine, Environment and Development (Seminar / Research Group; IAM and YUUP Biyotip Group, METU), Balaban Valley Group, Kerkenes Eco-Center Project, EURO Working Group on Continuous Optimization (EUROPT), EURO Working Group “Operational Research for Development” and EURO Working Group on Complex Societal Problems. The workshop started with a joint lunch in the “Cafeteria” of METU; the organizers were glad that Professor Hayri Körezlioğlu shared these moments with us. The scientific program consisted of various presentations and discussions on topics of education, development, chances of women and children, and migration, with a special emphasis on the rural and underdeveloped urban regions of Turkey. The workshop aimed at a deep analysis of the situation given and on ways out of the dilemmas. We are convinced that in future *mathematical methods* will play a core role in understanding and overcoming challenges in the development sector. The workshop showed the great experience which members of METU possess in this sector. It may be underlined that scientific and practical impulses from here led to the establishment of EURO Working Group “OR for Development” (EURO ORD) (<http://www2.ing.puc.cl/~fcrespo/eurofdv/>) in 2006. Please find closer information about our workshop under <http://www.iam.metu.edu.tr/EUROPT/Workshop%20on%20Complex%20Societal%20Problems.doc>.

2.g 2nd Summer School Achievements and Applications of Contemporary Informatics, Mathematics and Physics

First Open Summer School-Seminar “Achievements and Applications of Contemporary Informatics, Mathematics and Physics” (AACIMP-2006) was held at National Technical University of Ukraine “Kyiv Polytechnic Institute” (NTUU “KPI”) during August 6 – 20, 2006. It was organized by Students’ Science Association of NTUU “KPI” (SSA NTUU “KPI”).

People who work in perspective branches of modern science gathered there to share their knowledge and ideas with students and to communicate with colleagues. Extending knowledge of the youth, popularization of new technologies and ideas that are not studied in university and search for new contacts in the scientific world were the aims of Summer School.

Scientists from Holland, Turkey, Ukraine and further countries, namely, *G.-W. Weber, B. Goldengorin, R. Tikidgi-Hamburyan, I. Samoylenko, A. Makarenko, V. Melnyk*, and others, gave lectures about the most interesting achievements of contemporary science and their applications in the modern world for the listeners of Summer School. The main topics of the lectures dealt with applied mathematics, contemporary technical developments in information technologies and concepts of modern nature sciences. Here are some of them:

- Generalized Semi-infinite Optimization of Genetic Networks,
- Optimal Control of Singular Perturbed Infinite Systems,
- Tolerances and Data Correcting Based Algorithms in Combinatorial Optimization,
- Attractors of Evolutional Equalizations without Only Decision,
- Problems of Theory of the Optimum Management Tasks Meanings,
- Quantum Mechanics,
- Synergetic Study of the Brain Dynamics and
- Geo-information Systems, High Performance Computing.

Students and post-graduates were highly interested in all the lectures, asked their questions and had a possibility to discuss them either in formal or in informal atmosphere. Except lectures and seminars, two round table discussions were conducted: during one of them students, post-graduates and scientists had an opportunity to discuss their last works, achievements and ideas; the other one was dedicated to Physical Cybernetics – the topic of the book written by academician of the National Academy of Science of Ukraine I. Samoylenko. SSA NTUU “KPI” also organized interesting cultural program for all participants.

Importance of Summer School-Seminar was confirmed by the sponsorship and lectures of such world famous companies working with information technologies as Microsoft, Intel, Siemens, Cisco Systems, Novell.

“AACIMP-2006” was one of the first steps in complementary technical education. The organizers – all of them young students! - are grateful to all participants of Summer School-Seminar “Achievements and Applications of Contemporary Informatics, Mathematics and Physics” and invite everyone who is interested in these topics to visit next Summer School that will be held in 2007.

During this summer school which may be regarded to be very important for the development and of the whole country of Ukraine, its education, development and democracy, many friends joined EUROPT and the two new EURO Working Groups.

Please find closer information under
and <http://www.iam.metu.edu.tr/EUROPT/2006SummerSchoolKievREPORT.pdf> .

2.h Support for EURO-CBBM Workshop on OR in Computational Biology, Bioinformatics, and Medicine

In addition to the aforementioned EURO and events of EURO working groups which EUROPT officially co-organized, it was also supportive for the international workshop took place in Prague, Czech Republic, July 8, 2007, ideally and practically, by the help of various

its members. This workshop was organized by one of the new sisters of EUROPT among the EURO WGs: EURO Working Group on OR in Computational Biology, Bioinformatics and Medicine (EURO CBBM) (<http://euro-cbb.ku.edu.tr/conference/homepage.htm>) before the EURO 2007 meeting in Prague, Czech Republic. The objective of the workshop was to bring together researchers developing and using OR methods to solve problems in computational biology, bioinformatics and medicine from a range of countries. The workshop intended to be an effective forum for the exchange and for the discussion of current research, issues and future trends. IAM of METU belonged to the co-organizing institutions. Indeed, soon after its foundation, IAM gave a strong contribution to computational biology and medicine, the use of applied mathematics in these areas, on the stage of METU, Turkey and internationally. The foundation of EURO CBBM in 2006 became one expression of this engagement and success. At the workshop, there were excellent presentations given by both invited and contributed speakers. It was attended by about 50 participants from all over the world.

Please find closer information about the workshop under the homepage <http://euro-cbb.ku.edu.tr/conference/homepage.htm>; the program and abstracts can also be found under http://www.iam.metu.edu.tr/EUROPT/EURO-CBBM%20Workshop_Program+Abstracts.pdf.

2.i “Seminar on Applied Mathematics in Life and Human Sciences and Economy”

“*Seminar on Applied Mathematics in Life and Human Sciences and Economy*” is a weekly seminar at *Institute of Applied Mathematics (IAM)* together *YUUP Biyotip Group “Bioinformatics”* of METU and with *EUROPT*. In fact, EUROPT is serving this group by various international contacts and scientific impulses, including information and encouragement for submitting papers in *European Journal of Operational Research (EJOR)*. Reversely, EUROPT and entire EURO is getting feedback in the form of valuable ideas and proposals, as will be indicated below. Closer information about Computational Biology and Medicine by IAM which has been related with this seminar series can be found under <http://www.iam.metu.edu.tr/research/groups/compbio/index.html>.

There were about 25 presentations were given by our group. In the context of this seminar series, also the workshop of 2.f was prepared.

EUROPT is glad to inform about the following publications:

2.j EJOR Special Issue “Challenges of Continuous Optimization in Theory and Applications”

On July 2-3, 2004, the *fourth annual Workshop of EURO Working Group on Continuous Optimization (EUROPT)* took place at Rhodos City, Greece, on the subject “*Challenges of Continuous Optimization in Theory and Applications*” (cf. <http://www.iam.metu.edu.tr/contopt04/index.html>). At this occasion, in *European Journal of Operational Research* 181, 3 (2007), the special issue (or feature cluster) “Challenges of Continuous Optimization” appeared.

Guest Editors:

- *Mirjam Dür* (Darmstadt University of Technology, Germany),
- *Bülent Karasözen* (METU, Ankara, Turkey),

- *Tamás Terlaky* (EUROPT deputy at EJOR, McMaster University, Hamilton, Canada) and
- *Gerhard-Wilhelm Weber* (METU, Ankara, Turkey),

Please find closer explanations in the editorial under <http://www.iam.metu.edu.tr/EUROPT/EJOR-special-issue-Challenges%20of%20Continuous%20Optimization%20in%20Theory%20and%20Applications-preface.doc>.

2.k CEJOR Special Issue “Advances in Continuous Optimization”

The *5th EUROPT Workshop on Advances in Continuous Optimization* (<http://wwwhome.math.utwente.nl/~stillgj/COPT06/>) took place in Reykjavik, Iceland, on June 30 and July 1, 2006, just before the *EURO XXI* conference (<http://www.euro2006.org/>). At this occasion a special issue *Advances in Continuous Optimization* of CEJOR (Central European Journal of Operations Research) 16, 6 (2008) has been prepared and published.

Guest Editors:

- *Oliver Stein* (School of Economics and Business Engineering, University of Karlsruhe, Germany),
- *Georg Still* (Department of Applied Mathematics, University of Twente, Enschede, The Netherlands),
- *Tamás Terlaky* (Department of Computing and Software, School of Computational Engineering and Science, McMaster University, Hamilton, Ontario, Canada) and
- *Gerhard-Wilhelm Weber* (Institute of Applied Mathematics, Middle East Technical University, Ankara, Turkey).

Please find the editorial under <http://www.iam.metu.edu.tr/EUROPT/editorial.pdf>.

We worked on preparing

2.1 MMOR Special Issue “Special Issue of MMOR Devoted to ESI 2006”

The participants of EURO Summer Institute in Wittenberg were invited to submit to this special issue of *Mathematical Methods of Operations Research*.

Guest Editors:

- *Mirjam Dür* (Darmstadt University of Technology, Germany),
- *Petra Huhn* (Clausthal University of Technology, Germany),
- *Kathrin Klamroth* (University of Erlangen-Nuremberg, Germany) and
- *Christiane Tammer* (Martin Luther University Halle-Wittenberg, Germany) .

This special issue is in finalization right now.

2.m OMS Special Issue at the Occasion of “Joint EUROPT-OMS Conference”

Papers presented at the conference will be considered for peer-reviewed publication in a special issue of the journal *Optimization Methods and Software* (OMS; <http://www.tandf.co.uk/journals/titles/10556788.html>).

Guest-Editors:

- *Regina Sandra Burachik* (University of South Australia, Adelaide, Australia) and
- *Michal Kocvara* (University of Birmingham, UK).

This special issue will be finalized in the following months.

Furthermore, there is

2.n Special Issue “Continuous Optimization in Finance” of the Journal Optimization

Optimization will publish a small special issue on *Continuous Optimization in Finance*, a topic that is also one of the new research areas which in these years **EURO Working Group on Continuous Optimization (EUROPT)**; cf. <http://www.iam.metu.edu.tr/EUROPT/>) is strongly supporting. Indeed, continuous optimization has become a key technology in the entire financial sector which, reversely, poses new problems and research projects to optimization. The special issue will focus on topics that are equally important in both financial mathematics and optimization theory. It will (i) provide an overview of, and (ii) present some important recent developments in *continuous optimization* regarding the analysis and prediction of *financial* processes focusing on theory, methodology, and applications. The topics of the special issue include: (i) Financial Risk Management with Continuous Optimization, (ii) Portfolio Optimization, (iii) Regression Problems in Finance, and (iv) Stochastic Optimization and Control in Finance. All submissions must be focused on the topic of the special issue and belong to the general scope of Optimization. The main challenge and principal goal of this premium special issue is to contribute to the foundations and tools of continuous optimization in the financial world of tomorrow, concerning stock markets, banks, insurance companies, electricity markets, institutions for development, and further modern areas.

Guest Editor: *Gerhard-Wilhelm Weber* (IAM, METU, Ankara).

We supported in the preparation and finalization of two more special issues, namely:

2.o Help for EJOR Special Issue “OR for Better Management of Sustainable Development” and CEJOR Special Issue at the Occasion of EURO XXI 2006

Special Issue of Central European Journal of Operations Research, on OR for Better Management of Sustainable Development at the occasion of EURO XXI 2006, Central European Journal of Operations Research (CEJOR) 15, 3 (September 2007):

Guest Editors:

- *Stefan W. Pickl* (Bundeswehrhochschule München, Germany),
- *Gerhard-Wilhelm Weber* (METU, Ankara, Turkey) and
- *Martin Zachariasen* (University of Copenhagen, Denmark).

For the *CEJOR Special issue*, we refer to

<http://www.iam.metu.edu.tr/EUROPT/CEJOR%20Special%20Issue%20on%20OR%20for%20Better%20Management%20of%20Sustainable%20Development.pdf>.

Special issue *OR for Better Management of Sustainable Development* of European Journal of Operational Research (EJOR) at the occasion of EURO XXI 2006:

Guest Editors:

- *Ulrike Leopold-Wildburger* (Karl-Franzens University Graz, Austria),
- *Gerhard-Wilhelm Weber* (METU, Ankara, Turkey) and
- *Martin Zachariasen* (University of Copenhagen, Denmark).

For the *EJOR Special issue*, we refer to

[http://www.iam.metu.edu.tr/EUROPT/EJOR%20special%20issue%20\(EURO%20XXI%202006\).pdf](http://www.iam.metu.edu.tr/EUROPT/EJOR%20special%20issue%20(EURO%20XXI%202006).pdf).

2.p Help for Two New EURO Working Groups EURO CBBM and EURO ORD and their Activities

One of the fundamental goals of EUROPT is the collaboration with other EURO working groups and support given to them; the help in preparing, founding and first steps in conducting of them is one expression of this devotion.

In 2007 and, now, 2008, EUROPT paid a special attention to giving help to the following EURO Working Groups:

- *EURO WG OR in “Computational Biology, Bioinformatics and Medicine”* (<http://euro-cbb.ku.edu.tr/>),
- *EURO WG “OR for Development”* (<http://www2.ing.puc.cl/~fcrespo/eurofdv/>),
- *EURO WG Methodology for Complex Societal Problems* (<http://www.geocities.com/doriendetombe>) and
- *EURO WG “Decision Support Systems”* (<http://www.irit.fr/~Pascale.Zarate/>).

Please see also the corresponding scientific events stated in Section 3 for the year 2008.

2.q Integration of Further Research Areas in EUROPT

The classical scientific fields EUROPT are *Linear and Cone-Linear Optimization, Convex Analysis and Generalized Convexity, Global Optimization, Multi-Objective Optimization, Stochastic Programming and Nonlinear Optimization*. They are also represented by the members of the EUROPT Managing Board. But, EUROPT is fostering the following areas, too, contributing to their development under the roof of Continuous Optimization and the umbrella of EURO:

- *Continuous Optimization in Finance,*
- *Data Mining,*
- *Dynamical Systems,*
- *Inverse Problems* and
- *Optimal Control.*

By our organization and support of scientific events and special issues of journals, we contributed to these fields and go on with this engagement. Sections 2 and 3 are witnessing about this by various activities.

2.r EUROPT Homepage

The EUROPT homepage <http://www.iam.metu.edu.tr/EUROPT/> is maintained at Institute of Applied Mathematics, METU, Ankara, since summer 2003; before it was hosted at Eötvös Loránd University in Budapest. Our *webmasters* are

- *Basak Akteke-Öztürk* (web admininstator),
- *Köksal Yücesoy* (database adminator) and
- *Aysun Tezel* (EUROPT side admin. at EURO homepage),

in collaboration with *Kaisa Miettinen* and *G.-W. Weber*. ***Cordial thanks*** to the three ones for all their valuable service for our community, their efforts and devotion! This homepage collects and presents a lot of information about forthcoming scientific events, future plans in EUROPT, developments in EURO, job announcements, reports about events, scientific years and initiatives, the list of members, etc.. This is a service for the EUROPT members, for EURO and other organizations, scientific groups and, sometimes, companies. The EUROPT homepage is a medium closely interacting with the EUROPT newsletter:

2.s EUROPT E-Newsletter

Since 2006, EUROPT introduces its e-Newsletter which appears every 12 weeks. This important information and communication is the good hands of *Kaisa Miettinen* who is responsible for *Newsletter* and *Webpage* within EUROPT Managing Board. ***Cordial thanks*** for this! She is regularly assisted by *Başak Akteke-Öztürk* who with the above mentioned colleagues works for the internet sides, and by *G.-W. Weber*.

2.t Managing Board of EUROPT

The distribution of tasks of the board members is as follows:

I. Management-Tasks:

- *Florian Jarre*: Past Chair
- *Marco A. Lopez-Cerda*:
General Vice Chair, Chair Elect, Treasurer with *F. Jarre* and *G.W.W.*;
- *Mirjam Dür*: Events Coordinator with *M.A. Lopez-Cerda* and *G.W.W.*;
- *Kaisa Miettinen*: Newsletter-WEB-Page Editor with *F.J.* and *G.W.W.*;
- *Leonidas Sakalauskas*: Secretary with *F.J.* and *G.W.W.*;
- *Gerhard-Wilhelm Weber*: Chair.

II. Management- Scientific Areas:

- *Florian Jarre*: Linear and Cone-Linear Optimization;

- *Marco A. Lopez-Cerda*: Convex Analysis and Generalized Convexity;
- *Mirjam Dür*: Global Optimization;
- *Kaisa Miettinen*: Multi-Objective Optimization;
- *Leonidas Sakalauskas*: Stochastic Programming;
- *Gerhard-Wilhelm Weber*:
Nonlinear Optimization; and, with all board members, related topics.

At the 20th Mini EURO Conference in Neringa, Lithuania, May 20-23, 2008, the Managing Board will change.

2.u EUROPT Fellow 2007

In 2006, we appointed *Prof. Dr. Alexander Rubinov* (University of Ballarat, Australia) to become EUROPT FELLOW 2006, the first EUROPT fellow in EUROPT's history.

Then, in 2007, at the occasion of Joint EUROPT-OMS Conference, Prague, Czech Republic, July 4-7, 2007, *Prof. Dr. Georg Still* (University of Twente, Enschede, The Netherlands). In the laudatio, the extraordinary achievements of Professor Still very valued and thankfully praised. The solemn appointment took place at the Conference Dinner. Please find closer information and also fotos at under http://www.iam.metu.edu.tr/EUROPT/Joint%20EUROPT-OMS%20Conference%20_short_.pdf.

At our EUROPT homepage (<http://www.iam.metu.edu.tr/EUROPT/>), the EUROPT Fellows are represented by the link *EUROPT Fellows*.

2.v Support to Collaboration and Friendship between National OR Societies of EURO

Since its beginning in the year 2000, EUROPT serves the national OR societies which are members in EURO. Furthermore, many EUROPT members belong to one (or several) national OR societies. As a special expression of this help, the contributions of EUROPT and of its members became kernels around which EURO member societies could develop their friendship and even official partnership. So the German OR Society (GOR) signed a collaboration agreement together with the Hungarian OR Society (HORS) and the OR Society of Turkey (ORST), mainly based on activities and impulses given by EUROPT. Further collaboration agreements of GOR are in discussion; you will become informed about this. In the context of GOR-ORST collaboration, G.-W. Weber acts as an official representative of GOR in Turkey. His regular reports on the "*Life*" in GOR sent to the ORST members are one of our services in this context (please cf. the link Newsletters and Letters at <http://www.iam.metu.edu.tr/EUROPT/>).

3 Forthcoming Activities in 2008

In 2008, there will be numerous great events which EUROPT contributes to very strongly:

- (a) *20th Mini EURO Conference "Continuous Optimization and Knowledge-Based Technologies" (EuroPT-2008)*;

(b) *Workshop in Memory of Professor Hayri Körezlioğlu “Recent Developments in Financial Mathematics and Stochastic Calculus”;*

(c) *Workshop “The Simulation Tool Box for the Financial Engineer”;*

and we are among the organizing institutions and group which are preparing:

(d) *International Workshop on Hybrid Systems: Modelling, Simulation and Optimization;*

(e) *Workshop on “Complex Societal Problems, Sustainable Living and Development”;*

(f) *EngOpt 2008 - International Conference on Engineering Optimization;*

(g) *International Conference on Power Control Optimization (PCO’2008);*

(h) *Mini EURO Conference on Computational Biology, Bioinformatics and Medicine.*

Furthermore, we are supporting

(i) *IFIP TC8/WG8.3 Working Conference: International Conference on Collaborative Decision Making (CDM’08);*

(j) *IFORS 2008 Sandton – 18th Triennial Conference of the International Federation of Operational Research Societies;*

we already serve in organizing the renowned conference of 2009,

(k) *EURO XXIII 2009 – 23rd European Conference on Operational Research,*

and started to organize its satellite event

(l) *7th EUROPT Workshop “Advances in Continuous Optimization”.*

We are publishing

(m) *EJOR Special Issue “Continuous Optimization in the Industry”;*

and are about to finalize:

(n) *CEJOR Special Issue “Advances in Continuous Optimization”;*

(o) *MMOR Special Issue “Special Issue of MMOR Devoted to ESI 2006”;*

(p) *Special Issue “Continuous Optimization in Finance” of the Journal Optimization.*

Further publications by us will be

(q) *ISI Proceedings at the Occasion of 20th Mini EURO Conference EurOpt 2008;*

- (r) *TOP Special Issue at the Occasion of 20th Mini EURO Conference EurOpt 2008;*
- (s) *Informatica Special Issue at the Occasion of 20th Mini EURO Conference Continuous EurOpt 2008.*

We are providing

- (t) *Help for other EURO Working Groups and their Activities;*
- (u) *Integration of Further Research Areas in EUROPT;*
- (v) *EUROPT Homepage;*
- (w) *EUROPT E-Newsletter;*
- (x) *Managing Board of EUROPT;*
- (y) *EUROPT Fellow 2008*
- (z) *Support to Collaboration and Friendship between National OR Societies of EURO*

and

- (z') *Seminar on Applied Mathematics in Life and Human Sciences and Economy*
(weekly seminar) METU, Ankara.

3.a 20th Mini EURO Conference “Continuous Optimization and Knowledge-Based Technologies” (EurOPT-2008)

Our joint application for a EURO Mini Conference “*Continuous Optimization and Knowledge-Based Technologies*” May 20-23, 2008, Neringa, Lithuania, together with Litors, the Lithuanian Operational Research Society, has become accepted by EURO Executive Committee – without any complain. Since we had a “EURO MC” not long a time ago, just in 2005 when we met in Pécs, Hungary, that approval by EURO EC implies a valuable acknowledgement and great honour for us. Thanks to the leaders of EURO and a special gratitude to our friend and EUROPT Managing Board Member, *Leonidas Sakalauskas*, for his great efforts in preparing our Mini EURO Conference application.

Optimization techniques pierced through many chapters of OR, because their utilization “facilitates the choice and the implementation of more effective solutions which, typically, may involve complex interactions among people, materials and money problems” (www.euro-online.org). The latter challenge stimulates a study of existing techniques as well as development of new concepts for optimization. Conference *EurOPT-2008* aims at a more exhaustive study of optimization and optimal decision making towards knowledge-based technologies.

The scope of the International conference “*Continuous Optimization and Knowledge-Based Technologies*” is to overview trends, to gain a common attitude towards latest challenges in continuous optimization and advanced applications for knowledge-based technologies, such as robust optimization, optimization in finance, supply chain management and data mining.

We wish to contribute to education in Europe and the world, and to a deepening and initializing of scientific collaboration in the family of EURO and among our peoples.

The program of our conference consists of tutorials, invited and contributed papers. We encourage those interested in the following topics to overview the trends and gain a common attitude towards:

- robust optimization;
- complexity and efficiency of optimization algorithms;
- stochastic optimization;
- supply chain management;
- large-scale methods in global search;
- optimization in data mining;
- optimization and dynamical systems jointly applied to processes of information and development;
- data visualization for optimal decisions;
- applications of continuous optimization to combinatorial problems;
- applications in industry and business;
- optimization in finance;
- analysis and engineering of algorithms and
- software development.

We encourage researchers, in particular young ones, who start or develop their research related with optimization, to present it for discussion and take part in the tutorials on the challenging topics of optimization theory and practice, held during the conference. The proceedings of the conference will be published by an international publisher and delivered during conference. Special issues of publications on the subject of the conference will be published in various ways as being stated below.

Invited Speakers:

- Mirjam Dür (Darmstadt University of Technology, Germany;
Global Optimization),
- Kaisa Miettinen (University of Jyväskylä, Finland;
Multi-Objective Optimization and Multi-Criteria Decision Making),
- John Shawe-Taylor (University College London, UK;
Optimization and Machine Learning),
- Inderjit Dhillon (University of Texas at Austin, USA;
Information-Based Knowledge Discovery),
- Jerome Stein (Brown University, USA;
A Tale of Two Debt Crises: Stochastic Optimal Control Analysis),
- Marta Szachniuk and Jacek Blazewicz (Poznan University of Technology, Poland;
OR in RNA Structure Analysis),
- Yves Smeers (Catholique University of Louvain, Louvain-la-Neuve, Belgium;
Optimization and Knowledge-Based Technologies in Electricity Markets).

International Steering Committee:

- Saul Gass (University of Maryland, UMCP, USA),
- Valery Gordon (United Institute of Information Technologies, Belarus),
- Jonas Mockus (chair; Institute of Mathematics and Informatics, Vilnius),
- Tuula Kinnunen (Lic. Sc., Econ., Helsinki, Finland) and
- Jakob Krarup (University of Copenhagen, Denmark).

International Programme Committee:

- Adil Bagirov (University of Ballarat, Australia),
- Dimitri P. Bertsekas (Massachusetts Institute of Technology, USA),
- Regina Burachik (University of South Australia, Adelaide),
- Oleg Burdakov (Linköping University, Sweden),
- Emilio Carrizosa (University of Sevilla, Spain),
- Gintautas Dzemyda (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Ivan I. Eremin (Institute of Mathematics and Mechanics, Ekaterinburg, Russia),
- Yuri M. Ermolyev (IIASA, Austria),
- Yuri G. Evtushenko (Computational Center of Academy of Sciences, Russia),
- Miguel Goberna (University of Alicante, Spain),
- Tibor Illés (University of Strathclyde, Glasgow, Scotland),
- Bülent Karasözen (Middle East Technical University, Turkey),
- Andrei I. Kibzun (Moscow Aviation Institute, Russia),
- Eugene Kopytov (Institute of Transport and Telecommunications, Latvia),
- Arkadi Nemirovski (Georgia Institute of Technology, USA),
- Yuri Nesterov (Université Catholique de Louvain, Belgium),
- Vicente Novo (UNED, Madrid, Spain),
- Marco Lopez (University of Alicante, Spain),
- Kurt Marti (Federal Armed Forces University, Munich, Germany),
- Panos Pardalos (University of Florida, USA),
- Eleni Pratsini (IBM Europe - Zurich Research Lab, Switzerland),
- George Pflug (University of Vienna, Austria),
- Boris T. Polyak (co-chair; Institute of Control Problems, Moscow, Russia),
- Henrikas Pranevicius (Kaunas University of Technology, Vilnius, Lithuania),
- Ralph Tyrell Rockafellar (University of Washington, USA),
- Leonidas Sakalauskas (Institute of Mathematics and Informatics, Lithuania),
- Rimantas Seinauskas (Kaunas University of Technology, Vilnius, Lithuania),
- Alexander Shapiro (Georgia Institute of Technology, USA),
- Marc Teboulle (Tel-Aviv University, Israel),
- Tamás Terlaky (chair; McMaster University, Hamilton, Canada),
- Otu Vaarman (Institute of Cybernetics, Estonia),
- Fedor P. Vasiliev (Moscow State University, Russia),
- Stefan Voss (University of Hamburg, Germany),
- Gerhard Wilhelm (Willi) Weber (SIAM and EUROPT representative, Middle East Technical University, Turkey),
- Roger Wets (University of California at Davis, USA),
- Edmundas K. Zavadskas (Vilnius Gediminas Technical University, Lithuania) and
- Antanas Zilinskas (Institute of Mathematics and Informatics, Lithuania).

Organizing Committee:

- Vaida Bartkutė (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Jolita Bernataviciene (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Amir Beck (Technion - Israel Institute of Technology, Haifa, Israel),
- Vigintas Giedraitis (Neringa Municipality, Lithuania),
- Virginijus Marcinkevičius (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Kathrin Klamroth (University of Erlangen-Nuremberg, Germany),
- Rasa Karbauskaitė (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Olga Kurasova (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Leonidas Sakalauskas (chair; Institute of Mathematics and Informatics, Vilnius, Lithuania),

- Jonas Šaparauskas (Vilnius Gediminas Technical University, Lithuania),
- Zeev Volkovich (Ort Braude College, Karmiel, Israel),
- Gerhard-Wilhelm (Willi) Weber (c-chair; SIAM and EUROPT representative, Middle East Technical University, Ankara, Turkey) and
- E. Alper Yildirim (Bilkent University, Ankara, Turkey).

Organizing Institutions:

- European Association of Operational Research Societies (EURO),
- EURO Working Group on Continuous Optimization (EUROPT),
- Lithuanian Operational Research Society (LitORS),
- German OR Society (GOR),
- Institute of Mathematics and Informatics, Vilnius, Lithuania,
- Vilnius Gediminas Technical University, Vilnius, Lithuania, and
- Society for Industrial and Applied Mathematics (SIAM).

Co-Organizing Institutions:

- European Chapter on Metaheuristics (EUME),
- European Chapter on Combinatorial Optimization (ECCO),
- Kaunas University of Technology, Lithuania, and
- Klaipeda University, Lithuania.

Publications:

- *ISI Proceedings* at the Occasion of 20th Mini EURO Conference EurOpt 2008,
- *TOP Special Issue* at the Occasion of 20th Mini EURO Conference EurOpt 2008,
- *Informatica Special Issue* at the Occasion of 20th Mini EURO Conference EurOpt 2008.

For closer information about these issues please visit 3.q-s.

Homepage: <http://www.mii.lt/Europt-2008>.

3.b Workshop in Memory of Professor Hayri Körezlioğlu
“Recent Developments in Financial Mathematics and Stochastic Calculus”

with the Pre-Workshop Series of Seminars
“The Simulation Tool Box for the Financial Engineer”

The Workshop even will take place in METU, Ankara, Turkey, at April 25-26, 2008, and the Pre-Workshop Series of Seminar in the same place are at April 23-24, 2008. This double event is cosponsored by EUROPT and an expression of EUROPT’s engagement in supporting continuous optimization in the financial sector.

Homepage: <http://korezlioglu.iam.metu.edu.tr/>.

Scope:

On June 26, 2007, our dear teacher and friend Prof. Dr. Hayri Körezlioğlu passed away at the age of 77. Professor Körezlioğlu was the founder and chair of the Department of

Financial Mathematics at the Institute of Applied Mathematics (IAM) of the Middle East Technical University (METU). The institute was established in 2002 (<http://www3.iam.metu.edu.tr/>). That he is no longer among us means a great loss for the members of IAM, but also the members of EUROPT whose member he was.

IAM is organizing a special workshop in memory of Professor Hayri Körezlioğlu. It would like to share moments of science and friendship in his honour, in areas of applied mathematics which Professor Körezlioğlu worked in as a researcher, educator and as a pioneer in Turkey. The workshop will follow a series of seminars for practitioners from the financial sector, mainly, from Turkey, and for our students. Its program aims to represent various subjects constituting the title of the event. Talks will focus on the progress made in Financial Mathematics for modeling financial phenomena and developing numerical techniques for applications. An additional emphasis will be made on the theoretical foundations in Stochastic Calculus. Concerning applications, a major problem is model identification based on observations. In many countries, particularly in developing economies, statistical data are insufficient. This creates both decision making problems under uncertainty and model risks.

The scientific goals of the workshop consist sharing and discussing recent excellent research achievements, in preparing future projects on modern challenges in science and development of the financial sector, and is an invitation to the youth into this dynamics, with a special emphasis on guiding it. The workshop program will consist of tutorials, invited and contributed papers.

Topics:

Those interested in the following topics are welcome to overview the trends or present their recent achievement in themes such as

- option pricing,
- hedging of claims,
- interest rate models,
- market risk,
- credit risk and credit rating,
- computational statistics and statistical learning for model identification,
- inverse problems in finance,
- modeling and solution of random phenomena as Brownian motions,
- Levy processes in modeling financial instruments,
- functional central limit theorems for semi-martingales,
- modeling asymmetric or imperfect dynamical information,
- rare events and risk management,
- optimal portfolio management,
- stochastic optimal control in finance,
- dependence issue in finance,
- optimal stopping,
- large-scale optimization techniques in finance,
- numerical methods in finance,
- software development,
- applications of theory and methods to the financial sector of Turkey, and
- theoretical advances in stochastic processes and time-series models.

Invited Speakers:

- Erhan Bayraktar (University of Michigan, Ann Arbor, USA),
- Ulug Capar (Sabanci University, Istanbul, Turkey),

- Monique Jeanblanc (Université d'Evry Val d'Essonne, Evry, France),
- Ralf Korn (University of Kaiserslautern, Germany),
- Wolfgang J. Runggaldier (Universita degli Studi di Padova, Italy),
- Deniz Sezer (York University, Canada),
- Halil Mete Soner (Sabanci University, Istanbul, Turkey),
- Süleyman Üstünel (Ecole Nationale Supérieure des Telecommunications, Paris, France).

Program Committee:

- Ralf Korn (Department of Mathematics, University of Kaiserslautern, Germany),
- Bernt Oksendal (Department of Mathematics ,Oslo University, Italy),
- Wolfgang J. Runggaldier (Department of Pure and Applied Mathematics University of Padova, Italy),
- Mete Soner (Faculty of Management, Sabanci University, Turkey) and
- Gerhard-Wilhelm Weber (Institute of Applied Mathematics, METU, Turkey).

Organizing Committee:

- Inci Batmaz (Dept. of Statistics and IAM, METU, Ankara),
- Azize Hayfavi (IAM, METU, Ankara),
- Jale Körezlioğlu (President's Office, METU, Ankara),
- Devin Ali Sezer (IAM, METU, Ankara),
- Ömür Uğur (IAM, METU, Ankara),
- Gerhard-Wilhelm Weber (chair; IAM, METU, Ankara),
- Kasirga Yildirak (IAM, METU, Ankara; Trakya University, Turkey);
- *Assistant to the Committee:* Zehra Eksi (Financial and Actuarial Mathematics, Vienna University of Technology, Austria).

Co-organizing Institutions and Sponsors:

- Institute of Applied Mathematics, METU, Ankara, Turkey,
- Middle East Technical University (METU), Ankara, Turkey,
- Department of Mathematics, METU, Ankara, Turkey,
- European Science Foundation (ESF),
- “Applied Mathematical Methods for Finance” (AMaMeF),
- European Office of Aerospace Research & Development (EOARD),
- EURO Working Group on Continuous Optimization (EUROPT),
- Operations Research Society of Turkey (YAD; ORST),
- The Scientific and Technological Research Council of Turkey (TÜBİTAK) and
- IBM Turkey.

Pre-Workshop Series of Seminars:

3.c Workshop “*The Simulation Tool Box for the Financial Engineer*”

The two days workshop “*The Simulation Tool Box for the Financial Engineer*” will be held in honour of *Professor Hayri Körezlioğlu* at METU, Ankara, April 23-24, 2008, will be given by Ralf Korn (University of Kaiserslautern and Fraunhofer Institute for Industrial Mathematics, Kaiserslautern, Germany) and Elke Korn (Kaiserslautern). The course contains both introductory and advanced aspects of modeling and of Monte Carlo methods which are widely used in financial engineering. Stress is laid on the practical application.

For each topic numerical algorithms are presented and demonstrational software will be handed out to the course attendants. Due to its structure the course aims at a wide range of audience which includes financial economists, financial engineers, mathematicians and physicists interested in financial mathematics. The organizers and sponsors are the same as for the *Workshop “Recent Developments in Financial Mathematics and Stochastic Calculus”* (cf. 3.b).

3.d International Workshop on Hybrid Systems: Modelling, Simulation and Optimization

Hybrid systems are complex systems that exhibit discrete event as well as continuous time dynamics governed by differential and difference equations. Recent technological innovations have caused a considerable interest in the study of dynamical processes described by hybrid systems. Many systems in engineering and science can be considered as hybrid systems: continuous systems with phased operation (biological cell growth and division, walking robots), controlled by discrete logic (thermostats, aircraft autopilot modes, automobile automatic transmissions, chemical plants with valves and pumps), and coordinating processes (air and ground transportation systems, swarms of air vehicles).

The Workshop on Hybrid Systems Modeling, Simulation and Optimization will take place during May 14-17, 2008, in Istanbul, Turkey, at Koç University. It focuses on the modeling, simulation, control and optimization of hybrid systems. The workshop will provide researchers working in the field of hybrid systems, PhD students and general postgraduate level audience an overview of the methods used and discussions on the recent developments. The main aim is to identify emerging issues and research opportunities in the area of Hybrid Systems.

Organizing Committee:

- Lorenz T. Biegler (Carnegie Mellon University, Pittsburgh, USA),
- Metin Türkay (Koç University, Istanbul, Turkey),
- Bülent Karasözen (METU, Ankara, Turkey),
- Serdar Taşırın (Koç University, Istanbul, Turkey),
- Hakan Öktem (METU, Ankara, Turkey).

Programming Committee:

- Bruce H. Krogh (Carnegie Mellon University, Pittsburgh, USA),
- Alberto Bemporad (Università di Siena, Italy),
- Frank Doyle (University of California, Santa Barbara, USA),
- Frank Allgöwer (University of Stuttgart, USA),
- Yaman Arkun (Koç University, Istanbul, Turkey),
- İrşadi Aksun (Koç University, Istanbul, Turkey),
- Gerhard-Wilhelm Weber (METU, Ankara, Turkey).

Invited Speakers:

- Mihai Anitescu (Mathematics and Computer Science Division, Argonne National Laboratory, USA),
- David Stewart (Department of Mathematics, University of Iowa, USA),
- Bruce H. Krogh (Electrical and Computer Engineering, Carnegie Mellon University, USA),

- Francesco Borrelli (Department of Mechanical Engineering, University of California at Berkeley, USA),
- Alberto Bemporad (Dipartimento di Ingegneria dell'Informazione, Università di Siena, Italy),
- Paul I. Barton (Chemical Engineering, Massachusetts Institute of Technology, USA),
- Volker Mehrmann (Institut für Mathematik, Technische Universität Berlin, Germany),
- Lorenz T. Biegler (Chemical Engineering, Carnegie Mellon University, USA),
- Ignacio E. Grossmann (Chemical Engineering, Carnegie Mellon University, USA),
- Frank Doyle (Chemical Engineering, University of California, Santa Barbara, USA),
- Frank Allgöwer (Institute for Systems Theory and Automatic Control, University of Stuttgart, Germany).

Workshop Publications:

Journal of Process Control will publish a special issue on *Hybrid Systems: Modeling, Simulation and Optimization*, a topic that is also the theme of the international workshop to be held at Koç University, Istanbul, Turkey, May 14-17, 2008.

Guest Editors:

- Lorenz T. Biegler (Chemical Engineering, Carnegie Mellon University, USA),
- Bülent Karasözen (METU, Ankara, Turkey) and
- Metin Türkay (Koç University, Istanbul, Turkey).

Sponsors:

- The Scientific and Technological Research Council of Turkey (TÜBİTAK),
- Koç University, Istanbul, Turkey,
- Institute of Applied Mathematics, METU, Ankara, Turkey,
- Carnegie Mellon University, Department of Chemical Engineering, Pittsburgh, USA,
- KUMPEM (Koç Üniversitesi Migros Profesyonel Yönetici Eğitim Merkezi),
- The European Office of Aerospace Research & Development (EOARD),
- IBM Corporation,
- EURO-CBBM (EURO Working Group on Operational Research in Computational Biology, Bioinformatics and Medicine) and
- EUROPT (EURO Working Group on Continuous Optimization).

3.e Workshop on “Complex Societal Problems, Sustainable Living and Development”

This workshop will place in Ankara, at IAM of METU at May 16, 2008, embedded in the scientific stay of *Dorien DeTombe* (University of Amsterdam), Chair of International and EURO Working Group on Complex Societal Problems, at Institute of Applied Mathematics of METU, and of EUROPT (during May 7-17 and May 24-26, 2008). It will be a joint contribution by

- o Institute of Applied Mathematics, METU,
- o Department of Industrial Engineering, METU,
- o Middle East Technical University (METU),
- o Balaban Valley Group,
- o Seminar on Applied Mathematics in Life and Human Sciences and Economy - Computational Biology and Medicine,
- o General Seminar of IAM, METU,

- o EURO Working Group on Complex Societal Problems,
- o EURO Working Group “Operational Research for Development” (ORD) and
- o EURO Working Group on Continuous Optimization (EUROPT);

related with Seminar on Applied Mathematics in Life and Human Sciences and Economy.

Invited Speaker:

Dorien DeTombe (University of Amsterdam, the Netherlands).

The members of ***Organizing Committee*** and ***Program Committee*** are:

- o H. Akar (Dept. of Educational Sciences, METU, Ankara, Turkey),
- o B. Akteke-Öztürk (IAM, METU, Ankara, Turkey),
- o M. Azizoğlu (Dept. of Industrial Engineering, METU, Ankara, Turkey),
- o D. DeTombe (University of Amsterdam, The Netherlands),
- o A. Gökmen (Dept. of Chemistry and IAM, METU, Ankara, Turkey),
- o I. Gökmen (Dept. of Chemistry and IAM, METU, Ankara, Turkey),
- o S. Kayalığıl (Dept. of Industrial Engineering, Ankara, METU, Turkey),
- o J. Körezlioğlu (IAM, METU, Ankara, Turkey),
- o D.A. Sezer (IAM, METU, Ankara, Turkey),
- o F. Summers (Dept. of Architecture, Ankara, METU) and
- o G.-W. Weber (IAM, METU, Ankara, Turkey; chair)
- o L. White (University of Bristol, UK).

3.f EngOpt 2008 - International Conference on Engineering Optimization

This conference will take place in Rio de Janeiro, Brazil, at June 1-5, 2008. It is co-organized by EUROPT. Please find detailed information at the

Homepage: <http://www.engopt.org/>.

Objectives:

The main goal of EngOpt conferences is to periodically bring together engineers, applied mathematicians and computer scientists working on research, development and practical application of optimization methods applied to all engineering disciplines or developing basic techniques in this field.

Engineering Design Optimization:

Modern design techniques seek for the best design to perform the desired tasks. Engineering Optimization deals with the optimal design of elements and systems in all engineering fields.

Nowadays, use of Design Optimization techniques is rapidly growing in most of engineering disciplines, like automotive, aeronautical, mechanical, civil, nuclear, naval, mechanical, electrical, energy and off-shore engineering. This is due to the increase of technological competition and the development of strong and efficient techniques for several practical applications.

Multidisciplinary Design Optimization (MDO):

Engineering Systems are increasingly complex and represented by large and sophisticated numerical models. They involve several interacting disciplines or are made up of distinct interacting subsystems that must be considered simultaneously to obtain efficient designs.

Multidisciplinary Design Optimization is devoted to the design of complex systems involving interacting subsystems or disciplines. The main scientific challenges of MDO are concerned with the development of strong and efficient numerical techniques and with the computational organization required for the necessary coupling of codes employed in interacting disciplines.

Inverse problems:

Numerical methods for inverse problems in most of cases are based on optimization techniques similar to those employed in optimal design. This field, applied in all engineering disciplines, is of utmost importance for EngOpt conference.

Engineering Simulation Involving Optimization Techniques:

Several physical phenomena are naturally represented by an optimization problem. This is the case when the “equilibrium” is attained at the minimum of an energy function. In several applications, constraints must be satisfied. This is the case of contact problems in solids mechanics.

Basic Numerical Techniques:

Engineering Optimization requires a large set of basic computer tools. This is the case of several CAD tools for geometric modeling, engineering analysis methods, sensitivity analysis as well as mathematical programming and genetic or evolutionary optimization algorithms.

Interdisciplinarity in Engineering Optimization:

Modern Engineering Optimization is strongly interdisciplinary in two axes. The need of integration of basic and applied techniques and to solve real engineering problems, requires the cooperation of engineers, mathematicians and computer scientists, working on research and practical application.

A fundamental need for MDO is also the establishment of a strong communication of scientists and practitioners acting in different Engineering Disciplines.

EngOpt is intended to be a forum to expose and share current and future research and innovation in all techniques involved in Engineering Optimization as well as in the relationships among them.

Conference Themes:

Design Optimization and Inverse Problems:

Design Optimization and Inverse Problems papers in all branches of Engineering are invited.

The disciplines listed below give a guideline for possible contributions:

- Acoustics,
- Aerodynamics,
- Chemical Engineering,
- Chemistry and combustion,
- Civil Engineering,
- Design of Experiments,
- Electrical Systems,
- Electromagnetism,
- Fluid Mechanics,
- Geophysics,
- Heat and Mass Integration,
- Heat and Mass Transfer,
- Imaging,

- Industrial Engineering,
- Materials processing,
- Mechanical Engineering,
- Meteorology,
- Nuclear Engineering,
- Optimal Control,
- Planning,
- Process Synthesis Design,
- Robotics,
- Solid Mechanics,
- Scheduling,
- Structural Optimization,
- System Identification,
- Tomography and
- Vibrations and Structural Dynamics.

Basic Numerical Optimization Techniques:

- Artificial Intelligence and Neural Networks,
- Concurrent Engineering,
- Decomposition Methods,
- Disjunctive Optimization,
- Dynamic Optimization,
- Evolutionary Techniques,
- Fuzzy Optimization,
- Genetic Algorithms,
- Global Optimization,
- Mathematical Programming Algorithms,
- MDO - Multidisciplinary Design Optimization,
- Mixed-Integer Optimization,
- Multi-objective Optimization,
- Multi-scale Optimization,
- Optimality Criteria Methods,
- Optimization with Approximate Models,
 - Response Surface Methods,
 - Meta-models and Surrogates in Optimization,
- Real-Time Optimization,
- Reliability-Based Design Optimization,
- Robust Design,
- Shape Optimization,
- Size Optimization and
- Topology Optimization.

Efficient Analysis and Reanalysis Techniques with

- Boundary Elements Method,
- Finite Differences Method,
- Finite Elements Method,
- Finite Volume Method,
- Meshless Methods and
- Others techniques.

Sensitivity Analysis:

- Analytic and Semi-analytic Formulations,

- Variational Formulation,
- Automatic Differentiation,
- Topological Derivatives and
- Others Basic Engineering Optimization Techniques.

Industrial Applications:

- Aeronautical Industry,
- Automotive Industry,
- Bio-Mechanics Applications,
- Chemical Processing Equipments,
- Energy Generation and Transmission,
- Enterprise-Wide Optimization,
- Machinery Optimization,
- Micro-Mechanics Systems – MEMS,
- Micro and Nano-Technologies,
- Oil and Gas Industries,
- Space Industry,
- Supply Chain Optimization and
- Other Industrial Applications.

Organization:

Engopt 2008 is organized by: COPPE/UFRJ, Alberto Luis Coimbra Institute, Graduate School in Engineering, Federal University of Rio de Janeiro.

General Chairman:

José Herskovits (Mechanical Engineering Program – COPPE, Federal University of Rio de Janeiro).

International Organizing Committee:

- David H. Bassir (Franch-Comté University, Besançon, France),
- Kyung K. Choi (President of ISSMO, The University of Iowa, USA),
- Byung Man Kwak (KAIST, Korea Advanced Institute of Science and Technology, Seoul),
- Carlos A. Mota Soares (Technical University of Lisbon, Portugal),
- Helcio R.B. Orlande (Federal University of Rio de Janeiro, Brazil),
- Claudia Sagastizabal (Designated Mathematical Programming Society representative, Electric Energy Research Center, Brazil),
- Argimiro R. Secchi (Federal University of Rio Grande do Sul, Brazil),
- Francisco Soeiro (Designated ABCM Representative, State University of Rio de Janeiro),
- Gerhard-Wilhelm Weber (EUROPT Chair, Middle East Technical University, Turkey),
- Zhang Weihong (Northwestern Polytechnical University, Xi'An, China).

Advisory Board:

- Martin P. Bendsoe (Technical University of Denmark, Lyngby, Denmark),
- Oleg Burdakov (Editor: Optimization Methods and Software, Linköping University, Sweden),
- Sergio B. Choze (EMBRAER, Brazil),
- George S. Dulikravich (Editor: Inverse Problems in Science and Engineering, Florida International University, USA),
- Christodoulos A. Floudas (Princeton University, USA),

- Stéphane Grihon (AIRBUS, France),
- Ignacio E. Grossmann (Carnegie Mellon University, USA),
- Patrick Le Tallec (École Polytechnique, Palaiseau, France),
- Nelson Maculan Filho (COPPE/Federal University of Rio de Janeiro, Brazil),
- Wolfgang Marquardt (RWTH - Aachen University, Germany),
- Cristovão M. Mota Soares (Technical University of Lisbon, Portugal),
- Niels Olhoff (Aalborg University, Denmark),
- Pauli Pedersen (Technical University of Denmark, Lyngby, Denmark),
- Olivier Pironneau (University Paris VI, France),
- George Rozvany (Editor: Structural and Multidisciplinary Optimization, Budapest University of Technology and Economics, Hungary),
- Klaus Schittkowski (University of Bayreuth, Germany),
- Joyce S. de Souza Aires (PETROBRAS, Brazil),
- Andrew B. Templeman (Editor: Engineering Optimization, UK) and
- Tamás Terlaky (Editor: Engineering and Optimization, McMaster University, Canada).

International Scientific Committee:

- S. Adali (Durban, South Africa),
- H. Adeli (Ohio, USA),
- N.M. Alexandrov (Langley, USA),
- N. Andrei (Bucharest, Romania)
- J. Bandler (Ontario, Canada),
- S. Bastos (Recife, Brazil),
- D. Boussa (Marseille, France),
- A. Conn (New York, USA),
- A. De Faria (S. J. dos Campos, Brazil),
- J. Dias (Lisbon, Portugal),
- P. Eberhard (Stuttgart, Germany),
- L. Eloy (Rio de Janeiro, Brazil),
- C. Fleury (Liege, Belgium),
- O. Ghattas (Pittsburgh, USA),
- P.D. Gosling (NewCastle, UK),
- J. M. Guedes (Lisbon, Portugal),
- A. Habbal (Nice, France),
- P. Hajela (Troy, USA),
- B. Horowitz (Recife, Brazil),
- K. Jarmai (Miskolc, Hungary),
- H. Jensen (Santiago, Chile),
- J. Judice (Coimbra, Portugal),
- F. Van Keulen (Delft, Netherlands),
- M. Kocvara (Birmingham, UK),
- J. Lellep (Tartu, Estonia),
- T. Lewinski (Warsaw, Poland),
- J. Logo (Budapest, Hungary),
- M. Masmoudi (Toulouse, France),
- Y. Nesterov (Louvain, Belgium),
- A. Novotny (Petropolis, Brazil),
- P. Papalambros (Michigan, USA),
- P.M. Pardalos (Florida, USA),
- G.T. Parks (Cambridge, UK),
- L.C. Parmee (Bristol, UK),

- M. Rahim (New Brunswick, Canada),
- S. Rao (Miami, USA),
- J.R. Roch (Nancy, France),
- H.C. Rodrigues (Lisbon, Portugal),
- K. Roos (Delft, Neaderland),
- B. Rousselet (Nice, France),
- N. Sahinidis (Urbana, USA),
- B. Sensale (Montevideo, Uruguay),
- S. Selyugin (Moscow, Russia),
- C. Shoemaker (Cornell, USA),
- J. Sienz (Swansea, UK),
- O. Sigmund (Lyngby, Denmark),
- E.C.N. Silva (São Paulo, Brazil),
- L.C. Simoes (Coimbra, Portugal),
- R. Sinatra (Catania, Italy),
- S. Sloan (NewCastle, Australia),
- V. Sonzogni (Santa Fé, Argentine),
- M. Stolpe (Lyngby, Denmark),
- K.L. Teo (Perth, Australia),
- C. Toklu (Istanbul, Turkey),
- A. Tovar (Bogotá, Colombia),
- P. Venini (Pavia, Italy),
- K. Yamazaki (Kanazawa, Japan),
- Y. Yuan (Beijing, China) and
- M. Zhou (Irvine, USA)

Sponsoring Societies:

- Brazilian Society of Mechanical Sciences and Engineering (ABCM),
- EURO Working Group on Continuous Optimization (EUROPT),
- International Society for Structural and Multidisciplinary Optimization (ISSMO) and
- Mathematical Programming Society (MathProg).

Special Issues:

- *Optimization and Engineering,*
- *Inverse Problems in Science and Engineering* and
- *Optimization – Methods and Software (OMS).*

The authors of selected papers on Structural and Multidisciplinary Optimization are invited to submit a paper to:

- *Structural and Multidisciplinary Optimization.*

3.g International Conference on Power Control Optimization (PCO'2008)

The international conference on Power Control and Optimization (PCO-08; please visit <http://www.engedu2.net>), will take place in Chiang Mai, Thailand, at July 18-20, 2008. It is organized by Department of Electrical Engineering, Chiang Mai University, Thailand and Curtin University of Technology, Malaysia. EUROPT is an official sponsor and serves in co-organizing this special event, herewith contributing to one of the related scientific areas where EUROPT expressed its commitment to: Control theory and, in particular, *Optimal Control*.

The vision of PCO-08 is to bring today's highly inspiring and precision innovative research and resource development for tomorrow's industry in power and control. It has the mission to highlight innovative research and development of academics and industrial experts in the area of power control and its optimization techniques, and to provide a forum to disseminate the results to all industrial sectors in power quality, automation, business, finance, economics and management. Also, to bring all necessary information of the most recent and relevant innovations in regard to the theories and practices in industrial engineering and management, where a constructive dialogues on theoretical concepts, practical ideas and results of the state of the art will be developed.

The main objective of PCO-08 is to provide a platform for researchers, engineers, practitioners and academicians as well as industrial professionals to present their research results and development activities.

This conference, as part of discussing the results, ensures to provide opportunities for delegates to exchange new innovative ideas and application experiences face to face, and to provide a platform where possible entrepreneurs can think of new ventures, or generate research contacts and find global partners for future collaboration.

Topics:

Scope of the conference is contemporary and original research and educational development in the area of electrical power engineering, control systems and methods of optimization.

The scope of the conference includes, but not limited to the following topics:

- Power Generation, stations,
- Hybrid power system,
- Hydrogen fuel cell,
- Renewable energy system,
- Space harmonic and vector analysis,
- Finite element machine design,
- Speed drive systems,
- Micro-controller design,
- Variable structure control,
- Direct torque control,
- Smart controller and prototype machine,
- Actuators and mechatronics,
- Robotics and automation,
- Nano Physics,
- Micro and nano motors,
- NEMS and MEMS,
- Modeling and simulation,
- Simulator design,
- Software engineering,
- Soft computing,
- Computational intelligent,
- Hybrid optimization,
- Fuzzy optimization,
- Neuro-Fuzzy systems,
- Large-scale systems,
- Artificial immune system,
- Production system design,
- Rough set,

- Evolutionary algorithms,
- Genetic optimization,
- Particle swarm optimization,
- Ant colony optimization,
- Simulated Annealing,
- Tabu Search,
- Probabilistic Reasoning and
- Possibilitic Optimization.

For participation and, especially, Special Session Organization, we from EUROPT are cordially welcome!

Details about the Committees can be found under <http://www.engedu2.net/>.

3.h Mini EURO Conference on Computational Biology, Bioinformatics and Medicine

This Mini EURO Conference is the first Mini EURO Conference of our sister EURO working group EURO CBBM – and EUROPT serves as a co-organizing institution and sponsor. This also means that in addition to our Mini EURO Conference 2008 in Neringa, Lithuania, there is a second Mini EURO in 2008 with EUROPT. Indeed, optimization theory will play a very important scientific role in this second event, which will take place in Rome, Italy, September 15-17, 2008. EUROPT congratulates EURO CBBM (and also itself a bit) for this great success, that EURO Executive Committee approved this special and prestigious event in 2008, too. Please find detailed information at the homepage <http://euro-cbbm.ku.edu.tr/RomeConference/homepage.htm>.

Objectives of the Conference:

The EURO-CBBM Conference is organized by the EURO Working Group on Operational Research in Computational Biology, Bioinformatics and Medicine. The objective of the conference is to bring together researchers developing and using computational methods to solve problems in computational biology, bioinformatics and medicine.

Areas of Interest:

We welcome researchers from different backgrounds addressing challenging problems in computational biology, bioinformatics and medicine including but not limited to:

- Bio-molecular sequence analysis,
- comparative genomics,
- phylogenetics,
- modeling and prediction of gene patterns,
- micro-array informatics,
- protein structure prediction,
- protein interactions,
- genetic networks,
- analysis of genetic variations,
- systems biology,
- gene classification (e.g., for protection of gene pools),
- docking and drug design and
- modeling and analyzing of metabolic networks.

Invited Speakers:

- Alberto Apostolico (Georgia Institute of Technology),
- Costas Maranas (Pennsylvania State University) and
- Martin Vingron (Max Planck Institute for Molecular Genetics).

Conference Publications:

Journal of Mathematical Modeling and Algorithms will publish a special issue on Operational Research Models for Computational Biology, Bioinformatics and Medicine. All submission must be focused on the topic of the special issue and belong to the general scope of Journal of Mathematical Modeling and Algorithms. *Guest Editors:* Jacek Blazewicz, Paola Bertolazzi, Metin Türkay.

Program Committee:

- Paola Bertolazzi (Istituto di Analisi dei Sistemi ed Informatica “Antonio Ruberti” – CNR, Rome, Italy),
- Jacek Blazewicz (Institute of Computing Science PUT & Institute of Bioorganic Chemistry PAS, Poznan, Poland),
- Jon Garibaldi (University of Nottingham, UK),
- Ceyda Oğuz (Koç University, Istanbul, Turkey),
- Metin Türkay (Koç University, Istanbul, Turkey),
- Gerhard-Wilhelm Weber (IAM, METU, Ankara, Turkey) and
- Chandra Sekhar Pedamallu (New England Biolabs Inc., USA).

Coorganizing Institutions and Sponsors:

- o EURO CBBM (EURO Working Group on OR in Computational Biology, Bioinformatics and Medicine),
- o EURO (The Association of European OR Societies),
- o BIOPTRAIN (Bioinformatics, Optimisation, Training),
- o Koc University,
- o Institute of Computing Science, Poznan University of Technology,
- o Institute of Applied Mathematics, METU,
- o Dipartimento delle Tecnologie dell'Informazione e delle Comunicazioni & Istituto di Analisi dei Sistemi ed Informatica “Antonio Ruberti” - CNR, and
- o EUROPT (EURO Working Group on Continuous Optimization).

Furthermore, EUROPT gives various support to its sister *EURO Working Group on Decision Support Systems* at the occasion of

**3.i IFIP TC8/WG8.3 Working Conference:
International Conference on Collaborative Decision Making
(CDM'08)**

The IFIP TC8/Working Group 8.3 conferences present the latest innovations and achievements of academic communities on Decision Support Systems (DSS). These advances include theory, systems, computer aided methods, algorithms, techniques, and applications related to supporting decision making.

This conference is supported by the Euro Working Group on DSS (<http://www.euro-online.org/>) and takes place in Toulouse, France, July 1-4, 2008.

The main theme for the 2008 edition of the conference is Collaborative Decision Making and in particular, addressing the question of how to support Collaboration in Decision Making? Welcome answers will incorporate key elements to deal with the complexity of supporting collaborative decision making. Expected contributions will try to answer to some of the following questions:

- Where does the data for collaborative decision making come from and how is it assembled?
- Who is, or should be, involved in making the decision?
How do teams collaborate to build up common understanding?
- How to Tackle Complexity in decision making and decision support? A special focus on Data, Models and Actors will be taken into account.

The Conference chair is of friend *Pascale Zaraté* (IRIT-ENSIACET-INPT, Toulouse, France). EUROPT has is serving with announcements and scientific contributions at the conference. Our EUROPT member *Tatiana Tchemisova* (University of Aveiro, Portugal) accepted to be EUROPT representative at the IFIP TC8/WG8.3 Working Conference. Thank you very much, dear Tatiana!

Furthermore, EUROPT supports this year's renowned conference:

3.j IFORS 2008 Sandton *18th Triennial Conference of the International Federation of Operational Research Societies*

This famous conference is hosted by ORSSA, the OR Society of South Africa; it will take place at July 13-18, 2008, in Sandton Convention Centre, Sandton, South Africa. This event has been very much supported by EUROPT and its friends.

Homepage: <http://www.acitravel.co.za/event/>.

Conference Theme:

Operational Research: Developing Communities, Managing the Connections amongst Them.

Conference Topics:

The conference organizers invite all researchers, academics, practitioners, as well as students interested in all branches of operational research, mathematical modeling and simulation to participate in the conference and to present their papers in the following areas:

- optimization,
- locational planning,
- game theory,
- cutting and packing,
- humanitarian logistics,
- reliability,
- operations management,
- OR and healthcare,
- Simulation,
- manufacturing,
- OR for sustainable development,
- forecasting,
- scheduling,

- OR and economic development,
- OR and sports,
- queues,
- telecommunications,
- IFORS 50th Anniversary,
- transportation and logistics,
- finance,
- OR and ethics,
- supply chain management,
- decision analysis,
- maintenance and reliability.
- plenaries.

Publications:

Papers may be submitted for publication in *International Transactions in Operations Research (ITOR)*. See the IFORS 2008 website for an update on this.

Organizing Committee:

- Hans Ittmann (chair; South Africa),
- Marthi Harmse (South Africa),
- Sarma Yadavalli (South Africa),
- Gys Wessels (South Africa),
- Theo Stylianides (South Africa),
- Dave Evans (South Africa),
- Wim Gevers (South Africa).

Programme Committee:

- John Bartholdi (chair; USA),
- Hans Ittmann (South Africa),
- Theo Stewart (South Africa),
- Jeff Griffiths (UK),
- Martine Labbé (Belgium),
- Bernard Fortz (Belgium),
- Horst Hamacher (Germany),
- Paolo Toth (Italy),
- Sergio Maturana (Chile),
- Teodor Crainic (Canada),
- Donald Eisenstein (USA),
- Anton Kleywegt (USA),
- Michael Trick (USA),
- Moshe Sniedovich (Australia),
- Janny Leung (China),
- Chung-Piaw Teo (Singapore),
- Ya-xiang Yuan (China),
- Jaime Barcelo (Spain),
- Charles Mbohwa (Zimbabwe),
- George Nemhauser (USA).

Already in 2008 we from EUROPT are serving for

3.k EURO XXIII 2009 – 23rd European Conference on Operational Research

This prestigious event will take place in Bonn, Germany, at July 5-8, 2009. We from EUROPT played a significant role in gaining the more than 90 streams which are on the table of Invited Streams already!

This conference will succeed

3.l 7th EUROPT Workshop “Advances in Continuous Optimization”

which is going to take place in Remagen, near Bonn, Germany, at July 3-4, 2009.

In this 2008, we are happy to mention the publication of

3.m EJOR Special Issue “Continuous Optimization in the Industry”

The European Journal of Operational Research is publishing a special issue on *Continuous Optimization in the Industry*. It appears in the feature cluster issue *European Journal of Operational Research 191, 3 (2008)*. This issue has been initiated by EUROPT, in close correspondence with EJOR and EURO. It aims at demonstrating the state-of-the-art of this exciting research field, to reflect its challenges and to invite to future research and collaboration among the countries of EURO and in the world. Furthermore, this special issue will provide a destination for papers presented during our 17th EURO MC which was organized by EUROPT, Hungarian OR Society, University of Pécs, and supported by EURO and German OR Society (http://www.cs.elte.hu/opres/Pecs05EUROmini/h_about.html).

Guest Editors:

- *Tibor Illés* (University of Strathclyde, Glasgow, Scotland),
- *Marco Lopez Cerda* (University of Alicante, Spain),
- *Tamás Terlaky*, McMaster University, Hamilton, Canada,
- *József Vörös* (University of Pécs, Pécs, Hungary) and
- *Gerhard-Wilhelm Weber* (METU, Ankara, Turkey).

Please find further details in the preface (cf.

<http://www.iam.metu.edu.tr/EUROPT/modified-EuropeanJournalofOperationalResearch-SI-05-070212.doc>).

We will finalize three more special issues, namely:

3.n CEJOR Special Issue “Advances in Continuous Optimization”

Please cf. 2.k.

3.o MMOR Special Issue “Special Issue of MMOR Devoted to ESI 2006”

Please cf. 2.m.

3.p Special Issue “Continuous Optimization in Finance” of the Journal Optimization

Please cf. 2.n.

At the occasion of 20th Mini EURO Conference Continuous Optimization and Knowledge-Based Technologies (EurOpt 2008), Neringa, Lithuania, May 20-23, 2008, there will be 3 issues.

The first one is finalized and will appear:

3.q ISI Proceedings at the Occasion of 20th Mini EURO Conference EurOpt 2008

Conference Proceedings will be indexed/abstracted in and delivered during the Conference. You are invited to submit papers for Conference Proceedings according to above mentioned topics and others falling within the scope of the Conference.

Guest Editors:

- *Leonidas Sakalauskas* (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- *Gerhard-Wilhelm Weber* (Institute of Applied Mathematics, METU, Ankara, Turkey) and
- *Edmundas K. Zavadskas* (Department of Construction Technology and Management and Institute of Internet and Intelligent Technologies, Gediminas Technical University, VGTU).

Special issues of papers strongly selected from those presented during EUROPT-2008 will be published in

3.r TOP Special Issue at the Occasion of 20th Mini EURO Conference EurOpt 2008

TOP is an Official Journal of the Spanish Society of Statistics and Operations Research, ISSN: 1134-5764.

Guest Editors:

- *Leonidas Sakalauskas* (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- *Mirjam Dür* (Darmstadt University of Technology, Germany),
- *Marco Lopez-Cerda* (University of Alicante, Spain) and
- *Kaisa Miettinen* (University of Jyväskylä, Finland).

3.s Informatica Special Issue at the Occasion of 20th Mini EURO Conferene Continuous EurOpt 2008

Informatica is indexed/abstracted in the ISI Web of Science List, ISSN: 0868-4952.

3.t Help for Other EURO Working Groups and Their Activities

In 2008, EUROPT continuous its efforts to be at the side of EURO Working Groups, such as *EURO WG OR in “Computational Biology, Bioinformatics and Medicine”* (<http://euro-cbb.ku.edu.tr/>), *EURO WG “OR for Development”* (<http://www2.ing.puc.cl/~fcrespo/eurofdv/>), *EURO WG Methodology for Complex Societal Problems* (<http://www.geocities.com/doriendetombe>) and *EURO WG “Decision Support Systems”* (<http://www.irit.fr/~Pascale.Zarate/>).

3.u Integration of Further Research Areas in EUROPT

In 2008. Our engagement in the further research areas, in addition to the more classical fields that EUROPT has, go on: *Continuous Optimization in Finance, Data Mining, Dynamical Systems, Inverse Problems* and *Optimal Control*.

Please cf. 2.q, 3.a, 3.b, 3.c, 3.d, 3.f, 3.g, 3.p, 3.q, 3.r and 3, s.

3.v EUROPT Homepage

Please cf. 2.r.

3.w EUROPT E-Newsletter

Please cf. 2.s

3.x Managing Board of EUROPT

At the occasion of 20th Mini EURO Conference in Neringa, Lithuania, May 20-23, 2008, the Managing Board (cf. 2.t, and <http://www.iam.metu.edu.tr/EUROPT/>, link: Managing Board) will change. We from EUROPT will keep you well informed about the election process and outcome.

3.y EUROPT Fellow 2008

At the occasion of 20th Mini EURO Conference Continuous Optimization and Knowledge-Based Technologies, Neringa, Lithuania, May 20-23, 2008, the question about who has become *EUROPT FELLOW 2008* will be disclosed (cf. 2.u).

3.z Support to Collaboration and Friendship between National OR Societies of EURO

We are going on with our efforts as explained in 2.v.

3.z’ Seminar on Applied Mathematics in Life and Human Sciences and Economy (weekly seminar), METU, Ankara

Please cf. 2.i.

Acknowledgement: We cordially thank our two *Honorary Chairs* of EUROPT, *Prof. Dr. Tamás Terlaky* and *Prof. Dr. Tibor Illés*. There were always with us – at the place of our scientific events and, with their valuable advice, in many smaller and larger decisions which we had to do. Thank you very much, dear Tamás, thank you very much, dear Tibor!

To all friends who served so devotedly for our activities in 2007 and go on collaborating in our group's activities, we - EUROPT – are sending heartfelt thanks. With you we are going on serving for our peoples, their wealth, peace and friendship!

With best wishes, cordially yours,

Prof. Dr. Florian Jarre

Prof. Dr. Marco A. Lopez-Cerda

Prof. Dr. Mirjam Dür

Prof. Dr. Kaisa Miettinen

Prof. Dr. Leonidas Sakalauskas

and

Prof. Dr. Gerhard-Wilhelm Weber

(the members of the EUROPT Managing Board)

April 12, 2008

Acknowledgement: Cordial thanks to *Middle East Technical University*, Ankara, especially, *Institute of Applied Mathematics*, for hospitality given to EUROPT and its homepage.