"Vítejte v Praze!" – *"Welcome to Prague!"*

Scientific Exchange and Friendship in the Golden City of Prague

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

by
Gerhard-Wilhelm Weber,
Middle East Technical University, Ankara, Turkey,
for correspondence: gweber@metu.edu.tr

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 was 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).

Over the centuries, the lands of Bohamia, Moravia and Silesia, what we now call Czech Republic, became a country in the heart of Europe, right between north and south, east and

west. That special atmosphere, expressed by so famous writers and composers, can be most intensivelly experienced in the capital Prague, the Golden City.

"Vítejte v Praze!" – *"Welcome to Prague!"*:

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%20_EUROPT-OMS_%20rooms.pdf. Except for EURO conferences, we never had so many participants at a EUROPT event ever since! It may also be mentioned 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" 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 focussed 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 (see Figure 1). The university campus is located within 15 minutes walking distance of the historical centre of Prague.

Figure 1: University of Economics, 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

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

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

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

- Prof. Dr. Ya-xiang Yuan (Academy of Sciences, China):
  "Q-linear Convergence of the Steepest Descent Method".

The boards of all the **Conference Organizers** took care about a well preparation and conduction of our scientific and social event:

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

Program Committee:
- *Chair:* Prof. Dr. Gerhard Wilhelm Weber (Middle East Technical University, Turkey), representative of SIAM and EUROPT,
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- Prof. Dr. Adil Bagirov (University of Ballarat, Australia),
- Prof. Dr. Frédéric Bonnans (INRIA, France),
- Prof. Dr. Bruce Christianson (University of Hertfordshire, GB),
- Prof. Dr. Gustav Feichinger (Vienna University of Technology, Austria),
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- Prof. Dr. Andreas Griewank (Humboldt University, Germany),
- Prof. Dr. Luigi Grippo (University of Rome, Italy),
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- Prof. Dr. Berç Rustem (Imperial College, UK),
- Prof. Dr. Jan J. Rückmann (University of Birmingham, GB),
- Prof. Dr. Tamas Terlaky (McMaster University, Canada),
- Prof. Dr. Jie Sun (National University of Singapore, Singapore)   and
- Prof. Dr. Michael Ulbrich (Munich University of Technologu, Germany).

Organizing Committee:
- *Chair:* Prof. Dr. Marco A. López (Alicante University, Spain),
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- Dr. Juan Parra (Universidad Miguel Hernández, Elche, Spain),
- Prof. Dr. Stefan W. Pickl (Universitaet der Bundeswehr, Munich, Germany),
- Prof. Dr. Leonidas Sakalauskas (Institute of Mathematics and Informatics, Vilnius, Lithuania),
- Prof. Dr. Oliver Stein (Karlsruhe University, Germany),
- Dr. F. Javier Toledo (Universidad Miguel Hernández, Elche, Spain), Webmaster,
- Assoc. Prof. Dr. Metin Türkay (Koc University, Istanbul, Turkey),
- Cand. Dr. Aysun Tezel (Middle East Technical University, Ankara, Turkey),
- Assoc. Prof. Dr. Emre Alper Yilderim (Bilkent University, Ankara, Turkey)   and
- Prof. Dr. Jian-Zhong Zhang (Chinese University of Hong Kong, China).

Local Organizing Committee:
- *Chair:* Martin Gavalec (University of Hradec Kralove, Czech Republic),
- Ing.. Libuse Bazantova (University of Hradec Kralove, Czech Republic),
- Mgr. Pavel Cech (University of Hradec Kralove, Czech Republic),
- Prof. Dr. Jan Fabry (University of Economics, Czech Republic),
- Ing. David Havrlant (University of Economics, Czech Republic),
- Prof. Dr. Josef Jablonsky (University of Economics, Czech Republic),
- Ing. Karel Mls (University of Hradec Kralove, Czech Republic),
- RNDr. PhD. Pavel Prazak (University of Hradec Kralove, Czech Republic),
- Ing. Hana Sramkova (University of Hradec Kralove, Czech Republic) and
- Cand. MSc. Veronika Skocdopolova (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 (see Figure 2).

Figure 2:   Impressions from the presentations and coffee breaks.

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 Burachik: Regina.Burachik@unisa.edu.au

- Michal Kocvara: kocvara@maths.bham.ac.uk

The paper length should not exceed 25 journal pages. Instructions for Authors and style files are available on the OMS's web page (http://www.informaworld.com/OMS).

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

- EURO,
- Taylor & Francis,
- Pattern Analysis, Statistical Modelling 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 achievents 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, some weeks after the Prague days, EUROPT's list of participants consists of about *800* names.
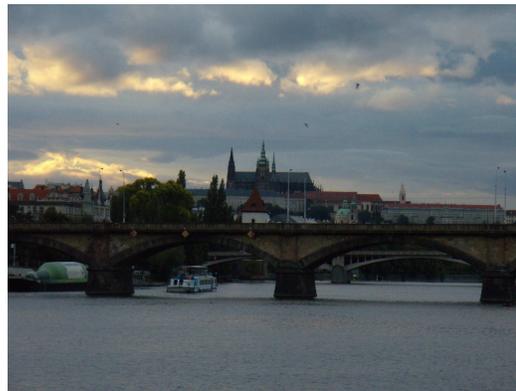
Figure 3:   Impressions from a walk in Prague and a boat trip on the Vltava.

Figure 4:   Impressions from the Conference Dinner and Honouring of EUROPT Fellow Georg Still.

❖ *Poster of Joint EUROPT-OMS Conference*

❖ We Cordially Thank our Valuable *Sponsors:*

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http://www.euro-online.org/

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Pattern Analysis, Statistical Modelling
and Computational Learning
http://www.pascal-network.org/

TOBB Economy and Technology University
http://www.etu.edu.tr

CIO, Miguel Hernández University,
Elche, Spain

http://cio.umh.es/

METU,
Ankara,
Turkey

IAM,
METU

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

University of Alicante,
Spain

http://www.ua.es/en/index.html

University of Economics,
Prague, Czech Republic

http://www.vse.cz/

University of Hradec Kralove,
Czech Republic

http://www.uhk.cz/

Society of Industrial and
Applied Mathematics

http://www.siam.org/

SIAG/OPT

SIAM Activity Group
on Optimization

http://www-unix.mcs.anl.gov/~leyffer/siagopt/

Optimization Society

Informs Optimization Society

http://optimization.society.informs.org/

Journal
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http://www.tandf.co.uk/journals/titles/10556788.html

EUROPT
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A cordial thank also to **all** those friends who served in making our *Joint EUROPT-OMS Conference* a success and, as we hope, contribution to collaboration, friendship and development in the area of continuous optimization, in Europe and the world!

Photos: *Cordial thanks* to our workshop participants
Cand. Dr. Karim Ait Yahia (Le Havre University, France),
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Cand. Dr. Semih Özden (Gazi University, Ankara, Turkey),
Cand. MSc. Ivan Soukal (University of Hradec Kralove, Czech Republic)!
There is a **more impressions**, maybe also about You, at:
http://www.iam.metu.edu.tr/EUROPT/h_photos.html.)

Ankara, July 31, 2007