Newsletter 12 of EUROPT

EUROPT - The Continuous Optimization Working Group of EURO

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

October 2008

In this issue:

- Words from the chair

- Forthcoming Events

- Call for papers

- Awards and Nominations

- Books and Special Issues

- Job opportunities

- Problems and Teaching Activities

- Editor's personal comments

Words from the chair

Dear Members of EUROPT, dear Friends!

It is again my privilege to address you some salutation words in this issue of our Newsletter, the first one edited by our dear friend, Prof. Domingos Cardoso. I am sure that Domingos, with the help of Tatiana Tchemisova, will succeed to maintain the high quality reached by our former Editor, Prof. Kaisa Miettinen, although this purpose constitutes a difficult challenge!

In these first months, after starting my duties as new Chair of EUROPT, I have to thank all the members of the Managing Board for their continuous support and advice, which is especially important for me in these times of changes, when my experience is more than limited.

I would like to mention here the invaluable support of my dear friend, Prof. Gerhard-Wilhelm Weber, Past-Chair of EUROPT, who is everyday assisting me in the numerous activities that I have to impulse. He is acting as the best ambassador that EUROPT could ever have, and his energetic collaboration allows us to improve continuously our already good relationships with EURO and with many other scientific societies.

Our dear Willi has the main merit of have been able to recruit this wonderful team of young colleagues, Basak Akteke-Ozturk, Koksal Yucesoy, and Aysun Tezel, which have devoted hundreds of hours to administrative tasks, web managing (http://www.iam.metu.edu.tr/EUROPT/), etc., with the only compensation of being witness of the EUROPT progress. Dear Basak, Koksal and Aysun; on behalf of EUROPT members I want to express our deepest gratitude. Thanks a lot!

In my salutation words of the last Newsletter, I commented that my challenge, as new EUROPT Chair, consists of maintaining this progress line, trying to attract new and young researchers to our group, offering them a friendly atmosphere, creating synergies, and helping them to reach their professional goals. The main tools that EUROPT has to achieve these objectives are, in my opinion, the Newsletter and the annual EUROPT Workshop.

We can be sure of the brilliant future of the Newsletter just by giving a look at this issue, and we can contribute to make this instrument even more useful by sending any relevant information to Domingos (dcardoso@ua.pt) and/or Tatiana (tatiana@ua.pt)

Concerning our EUROPT Workshop, let me call your attention on the next one, the 7th EUROPT Workshop "Advances in Continuous Optimization", which will be held in Remagen, Germany, in July 3-4, the days previous to EURO XXIII 2009, in Bonn. Soon the website of the Workshop will be available. We cordially invite you to participate in the Workshop which, aside its high scientific interest, constitutes the occasion to meet all members of the big EUROPT family.

With my best wishes, Your sincerely,
Marco A. Lopez, Chair of EUROPT

Forthcoming Events

- **IFAC Workshop on Control Applications of Optimisation CAO'09: Control Applications of Optimisation, May 6-8,2009, Agora, Finland**

http://cao09.automaatioseura.fi/

The IFAC Workshop on Control Applications of Optimisation is held every three years. The purpose of the Workshop is tom present and share ideas on new developments in the interacting fields of optimization and control. Both theoretical research and practical applications are covered, some of the main topics including numerical optimization techniques, applications in control problems, advances in optimal control, multi objective optimization, robust control and adaptive control, differential games etc. Sharing ideas between researchers from universities and industry in both theoretical research and applications in this area is especially encourages to show where the optimization in today's technological society faces its most important challenges.

IMPORTANT DAYS

Call for papers: July 2008
Submission of full draft papers: September 30, 2008 (extended November 1, 2008)
Notification of acceptance: November 28, 2008
Full Paper Submission: December 31, 2008
Early Registration deadline: March 16, 2009
Workshop: May 6-8, 2009

- **23-rd EUROPEAN CONFERENCE ON OPERATIONAL RESEARCH Bonn, Germany, July 5 - 8, 2009**

http://www.euro-2009.de/

The 23nd European Conference on Operational Research, EURO XXIII, is organized by the Gesellschaft fuer Operations Research (GOR) e.V. in co-operation with the University of Siegen and will be held in the Gustav-Stresemann Institute and the Maritim Hotel in Bonn. The Programme and Organising Committee are preparing a high quality academic programme of the Conference. In addition to this, you will have an excellent opportunity to exploit the city and vicinity of Bonn! A history of more than 2000 years has given the city most appealing and memorable facets. Bonn is an international center of science, arts and politics. You will enjoy the picturesque impressions along the romantic Rhine, Bonn's international and political life or the magnificent Ahr wine region.

Culture is inseparably linked to the works of Ludwig van Beethoven, but also of Robert Schumann, August Macke and Ernst Moritz Arndt.

On behalf of all organizers, we wish you will have a pleasant stay in Bonn, with many unforgettable memories to take back home.

Gerhard Woeginger – Chair, Programme Committee, Erwin Pesch – Chair, Organizing Committee

PROGRAMME COMMITTEE:
Chair: Gerhard Woeginger, The Netherlands;
Horst Hamacher, Germany; Graham Kendall, Great Britain; Bernhard Korte, Germany; Jan Karel Lenstra, The Netherlands; Ulrike Leopold-Wildburger, Austria; Silvano Martello, Italy; Benny Moldovanu, Germany; George Nemhauser, USA; Erwin Pesch, Germany; Roman Slowinski, Poland; Gerhard-Wilhelm Weber, Turkey

ORGANIZING COMMITTEE:
Chair: Erwin Pesch, Germany;
Co-chair: Peter Letmathe, Germany;
Josef Jablonsky, Czech Republic; Florian Jaehn, Germany; Jose M.P. Paixao, Portugal; Frank Schultmann, Germany; Gerhard Waescher, Germany (VP EURO); Gerhard-Wilhelm Weber, Turkey

CONTACT:
Prof. Dr. Erwin Pesch, Institute of Information Systems, FB 5 University of Siegen 57068 Siegen Germany Phone: 0049 271 - 740 2420 Fax: 0049 271- 740-2940

CONFERENCE TOPICS:
We invite all researchers, academicians, practitioners, as well as students interested in all branches of operational research, mathematical modeling and economic analysis to participate at the conference and to present their papers in the following areas:

Continuous optimization and control; Data mining, knowledge discovery; artificial intelligence; DEA and performance management; Decision analysis; decision support systems; modeling languages; Discrete optimization, graphs networks; Energy, environment climate; Financial modeling, risk management, banking; Fuzzy sets, soft computing; Game theory, mathematical experimental economics; Health, life sciences bio informatics; Location, logistics, transportation and traffic; Meta heuristics biologically inspired approaches; Multiple criteria decision making, optimization group decision; OR education, history ethics; OR for developing countries; OR in agriculture natural resources; OR in industries software applications; Production management, supply chain management; Revenue management managerial accounting; Scheduling, time tabling project management; Stochastic programming, stochastic modeling and simulation; System dynamics and dynamic modeling; Telecommunication network analysis.

SESSIONS:

Invited and contributed papers will be organized in parallel sessions of 90 minutes, with three or four papers in each session. Abstracts can be submitted via the Conference web page - www.euro-2009.de/. Every participant can present no more than one paper at the Conference.

Invited and contributed sessions will generally be a part of conference Streams which are grouped by Main Streams. Their lists together with responsible organizers are presented on the conference web page. Researchers who want to organize an invited session or contribute a paper within an invited session should contact the Stream organizer, Main Stream organizer or a corresponding member of the PC with their proposals.

INVITED (KEYNOTE) SPEAKERS: (not yet complete):

Rainer Burkard (Graz, Austria; EURO Gold Medal 1997); Edmund Burke (Nottingham, UK); Ulrich Dorndorf (Aachen, Germany); Salvatore Greco (Catania, Italy); Toshihide Ibaraki (Kobe, Japan); Hubertus Th. Jongen (Aachen, Germany); Andrea Lodi (Bologna, Italy); Rolf Moehring (Berlin, Germany); Noam Nisan (Jerusalem, Israel); Franz Rendl (Klagenfurt, Austria); Nitin Saxena (Bonn, Germany; Goedel Prize 2006, Fulkerson Prize 2006); Reinhard Selten (Bonn, Germany; Nobel Prize 1994); Michael Trick (Pittsburgh, USA); Jens Vygen (Bonn, Germany).

PRIZES AND AWARDS:

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

- The EURO Gold Medal
- The EURO Distinguished Service Medal
- The EURO Excellence in Practice Award (EEPA 2009)
- The EURO Management Science Strategic Innovation Prize (MSSIP 2009)
- The EURO Doctoral Dissertation Award (EDDA 2009)

REGISTRATION FEES:

Regular Early (before April 1, 2009): 340 Euros Regular Late (after April 1, 2009): 440 Euros Student Early (before April 1, 2009): 180 Euros Student Late (after April 1, 2009): 280 Euros Accompanying persons: 120 Euros Banquet (Tuesday night): 70 Euros

THE REGISTRATION FEE INCLUDES Participation in all sessions, access to the exhibition during the EURO Conference, conference materials (Final Program, Book of Abstracts), participation in the Welcome Reception, Coffee breaks, Lunches.

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

- **7th EUROPT Workshop "Advances in Continuous Optimization"**, University of Applied Sciences, Remagen (near Bonn), Germany, July 3-4, 2009 (http://www.rheinahrcampus.de/europt2009).

- **A EURO ORD Workshop on OR for Developing Countries — Young Researchers and PhD Symposium**, University of Applied Sciences, Remagen (near Bonn), Germany, July 4, 2009.

SPECIAL ISSUES:
We are collecting and at the homepage announcing Calls for Papers for precious special issues succeeding EURO 2009.

≪

IMPORTANT DAYS

Submission for abstracts starts: October 2008
Deadline for abstract submission: March 1, 2009
Notification of acceptance: March 31, 2009
Deadline for early registration: April 1, 2009
Deadline for author registration (for inclusion in the programme): April 15, 2009
Conference: July 5-8, 2009

- ## The first announcement of the 4-th German-Polish Conference on Optimization, 14-18 March 2009, Moritzburg, Germany

http://www.math.tu-dresden.de/ gpco2009/

The 4th German-Polish Conference on Optimization will take place from March 14 - 18, 2009 in Moritzburg, Germany (close to Dresden).
Registration details will be available at this site by September 30, 2009.
Questions and comments are welcome. You may contact the organizers by sending an email to GPCO2009@mailbox.tu-dresden.de

- ## 8th World Congress on Structural and Multidisciplinary Optimization (WCSMO-8) June 1-5, 2009, Lisbon, Portugal

http://www.wcsmo8.org/

International Society for Structural and Multidisciplinary Optimization (ISSMO announces that the 8th World Congress on Structural and Multidisciplinary Optimization (WCSMO-8) will be held at the LNEC Conference Centre in Lisboa, Portugal, June 1-5, 2009.

ISSMO was founded in October 1991 and has held biennial World Congresses on Structural and Multidisciplinary Optimization since 1995: WCSMO1 was held in Goslar, Germany, 1995; WCSMO2 in Zakopane, Poland, 1997; WCSMO3 in Buffalo, NY, USA, 1999; WCSMO4 in Dalian, China, 2001; WCSMO5 in Lido di Jesolo, Italy, 2003; WCSMO6 in Rio de Janeiro, Brazil, 2005; and WCSMO7 in Seoul, Korea, 2007. One of the purposes of ISSMO is to bring together researchers and practitioners in our field by means of international meetings having high scientific standards, up-to-date conference facilities, and affordable costs. The main objectives of these conferences are to stimulate and promote research on all aspects of structural and multidisciplinary optimization, including engineering systems consisting partially of structures and/or fluids, and to encourage practical applications of optimization methods and corresponding software development in all branches of science and technology.

<div align="center">

IMPORTANT DAYS

Abstract Submission deadline: January 12, 2009
Abstract Review and Acceptance: February 16, 2009
Full Paper Submission deadline: April 17, 2009
Early Registration deadline: April 17, 2009

</div>

- ## Second Global Conference on Power and Optimization PCO2009 June 1-3,2009, Bali, Indonesia

<div align="center">

httt://www.engedu2.net

</div>

It is our great pleasure to announce the second Global Conference on Power Control and Optimization PCO 2009, which will be held in Bali, Indonesia from 1 to 3 June 2009. The Conference is technically sponsored by AIP, WSEAS and Springerlink, and organized by Department of Electrical Engineering, Curtin University, Malaysia.

Prospective authors from universities and industries are invited to submit the full paper by email before the deadline. Paper should be submitted electronically, formatted in MSWord, as per PCO-08 guideline.

All papers will be peer reviewed by two independent reviewers as per IEEE guide. PCO-09 proceeding will be published online by AIP. Selected papers will be published in WSEAS, Springer Verlag, and other Journals.

Proposal for holding special sessions and workshop are invited from prospective authors and industrial bodies, and should be addressed to the Chair, Special Sessions.

The program committee is currently looking for speakers and financial sponsors from industry, academics, and professional bodies.

Each accepted paper must be presented by one of the authors after paying the necessary fee of 200.00 EURO. This fee is applied for all delegates, accompanies and students. No discount or waving will be given.

All correspondence should be addressed to the conference secretariat: Tel.: 605 3711416, 6085443821, e.mail: icpco.20@gmail.com

<p style="text-align:center">IMPORTANT DAYS
Receipt of Full Papers :   February 1, 2009
Notification for Peer Review :   March 1, 2009
Camera ready Paper :   April 15, 2009
Registration with full payment :   April 15, 2009</p>

- ## CORS-INFORMS International "Toronto-09" June 14-17, 2009, Toronto, Canada

http://meetings.informs.org/Toronto09/

You are cordially invited to join us at the CORS/INFORMS 2009 Joint International Meeting in Toronto, a city with more than 100 cultures coming together to create unique cuisine, shopping and art you won't see anywhere else. The meeting will take place at the Westin Harbour Castle Hotel overlooking Lake Ontario.

CORS-INFORMS International "Toronto-09" invites submissions in all areas of OR/MS. Abstracts received by January 15, 2009 will receive preference in scheduling.

For further information on submission call 800-446-3676 or 443-757-3500 x 590 or

email meetings@informs.org

<p style="text-align:center">IMPORTANT DAYS
Abstract submission deadline :   January 15, 2009
Author's deadline for final abstract changes :   April 15, 2009
Early registration deadline :   May 11, 2009
Hotel reservation cut-off date :   May 11, 2009</p>

- ## 16th International Scientific Conference on Mathematical Methods in Economy and Industry June 15–19, 2009, Cesk Budejovice (Czech Republic)

http://www2.zf.jcu.cz/public/projects/mmei/

The series of meetings "Mathematical Methods in Economics and Industry" founded by prof. Nozicka continuous with a new issue. The 16th-MMEI meeting will be held in Ceskй Budejovice (Budweis, Czech republic) at June 15-19, 2009. The conference site is located at the campus of the University of South Bahemis, the biggest university in the region with seven faculties and thousands of students.

Contacts: MMEI 2009, Petr Lachout, Charles University of Prague, Dept. of Math.Statistics and Probability, Sokolovská 83, 186 75 Praha 8-Karlнn, Czech Republic
email: lachout@karlin.mff.cuni.cz

- # EURO Summer Institute 2009 OR in Agriculture and Forest Management
  ## July 25th-August 8th, Lleida, Spain

www.orafm.org

Aims and Scope Spanning the bridge between optimization theory and primary sector applications (mainly Agriculture and Forestry, but also Fisheries and Natural Resources in general) is one of the big challenges for the operations research community. Stochastic optimization and modern software implementations have become an indispensable resource in engineering sciences and economics. This high demand in interdisciplinary collaboration is, however, not adequately covered in most of the current curricula programs in applied mathematics or (agronomic/forest) engineering.Aim of this EURO Summer Institute is to bring together young scientists with academic experts on OR methods besides the development of applications for Agriculture, Forestry and related industries of the p

- *Management Sciences:* Banking and Financing, Logistics, Marketing, supply chain, Health Management

- *Modeling and Simulation:* General Problems, Combat operations and war gaming, modeling in Environment, business, finance, Marketing, etc.

- *Multi Criteria Decision Making:* Decision Support Systems, Multi objective Optimization, Preference modeling, Knowledge Discovery, etc.

- *Information and Communication Technologies:* Coding and Prototyping, AI and Expert systems, Network Technologies, Convergence technology, OR and IT, IT security, Mobile communication, etc

- *Applied Probability:* SPC, Design of Experiments, Stochastic Processes, Statistical Inference, Survival Analysis, Econometrics, Multivariate analysis, Distribution Theory, etc.

- *Advanced OR models:* Mathematical and Stochastic Programming, Data Mining, DEA, Combinatorial Optimization, Information Systems,

All the papers will be peer reviewed with respect to their quality originality and relevance. Accepted papers will be published in the conference proceedings provided at least one of the authors register and undertake to present the paper. Conference kit will be provided only to the registered authors.

ORGANIZING SECRETARY: DR. P. THIRUPATHI RAO Dept. of Statistics, S.V. University, Tirupati-517502, Chittoor, A.P., India

Phones: (O): 91-877-2289305, (R):91-877-2241695, Mobile: 91-94401 20196,

E-mail: orsicon2008@yahoo.com, drtrpadi@yahoo.com drtrpadi@gmail.com

GENERAL CHAIR: DR.P. RAJASEKHARA REDDY

Mobile: 91-94418 10729,

E-mail: putharsr@yahoo.co.in

CONFERENCE SECRETARY : DR. C. UMA SHANKAR

Phones: (O) 91-8518-271183, (R) 91-8518-276269, Mobile: 91-94412-63963,

E-mail: cumaor@rediffmail.com

IMPORTANT DAYS

Submission of extended abstracts: October 31, 2008

Abstract acceptance notification :   November 7, 2008

Submission of full paper along with registration fee of at leas tone of the authors :
November 15, 2008

Final schedule notification: November 30, 2008

The Fourth International Workshop on Freight Transportation and Logistics, ODYSSEUS 2009

May 26-29,2009, Cesme - Izmir, Turkey

www.odysseus2009.org

ODYSSEUS 2009, the fourth international workshop on freight transportation and logistics, will be held in Cesme - Izmir, Turkey on May 26- 29, 2009. On behalf of the Organizing Committee, we invite you to submit your extended abstracts via the workshop homepage http://www.odysseus2009.org/ by December 21, 2008.

Please use our online submission system under *Home* or *Important Dates*. You will have to *Sign Up* with Abstract Agent prior to uploading your 3-page abstract.

IMPORTANT DAYS

3-page extended abstract due data: December 21, 2009

Notification of acceptance: February 15, 2009

Due data for the revised versions of accepted abstracts: March 20, 2009

Early registration due data: March 20, 2009

ODYSSEUS 2009 workshop days: May 26-29, 2009

11th INFORMS COMPUTING SOCIETY CONFERENCE
Operations Research and Cyberinfrastructure
January 11-13, 2009, Charleston, South Carolina

http://ics09.meetings.informs.org/

11th INFORMS COMPUTING SOCIETY CONFERENCE Operations Research and Cyber-infrastructure will be held in Charleston, South Carolina, January 11-13, 2009
ONLINE REGISTRATION: http://ics09.meetings.informs.org/registration.shtml
Presentation abstracts should be submitted via the conference web site.
PLENARY SPEAKERS: RICHARD (DICK) KARP. Turing Award, National Medal of Science, Kyoto Prize, Benjamin Franklin Medal. Seminal work on algorithms and NP-completeness. MIRON LIVNY. Leader of the Condor and Open Science Grid projects. ACM SIGMOD Test of Time Award. Seminal work on distributed databases and high-throughput computation.
LOCATION:
The Francis Marion Hotel, located in the heart of historic Charleston, was the largest and grandest in the Carolinas when it opened in 1924. Named for General Francis Marion, the "Swamp Fox" of the American Revolution, the Francis Marion Hotel in Charleston re-opened in 1996 after a 12 million National Trust award-winning restoration, and is once again Charleston's Grand Hotel.
PROGRAM COMMITTEE: Edward Baker, University of Miami John Chinneck, Carleton University Robert Fourer, Northwestern University Bruce Golden, University of Maryland Lou Hafer, Simon Fraser University William Hart, Sandia National Laboratories Allen Holder, Rose-Hulman Institute of Technology Bjarni Kristjansson, Maximal Software Manuel Laguna, University of Colorado at Boulder Laurent Michel, University of Connecticut Warren Powell, Princeton University S. Raghu Raghavan, University of Maryland Ted Ralphs, Lehigh University Matthew Saltzman, Clemson University Douglas Shier, Clemson University Cole Smith, University of Florida Michael Trick, Carnegie Mellon University Pascal Van Hentenryck, Brown University Edward Wasil, American University David Woodruff, University of California, Davis

IMPORTANT DAYS
Submission deadline: November 1, 2008
Notification of acceptance: November 15, 2008
Register for reduced rates: December 1, 2008
Conference: January 11-13, 2009

VIII Brazilian Workshop on Continuous Optimization
July 13-17, 2009, Angra dos Reis, Rio de Janeiro

http://www.impa.br/opencms/pt/eventos/store/evento_0902
The VIII Brazilian Workshop on Continuous Optimization will take place at resort in Mambucaba, near Angra dos Reis (about 200 km from Rio de Janeiro) between July 13 and 17, 2008. Subjects to be discussed encompass theoretical, computational and implementation issues, in

both linear and non-linear programming, including variational inequalities, complementarity problems, non smooth optimization, vector optimization, generalized equations, etc.

Addresses: e-mail address: optim09@impa.br; postal address: VIII Brazilian Workshop on Continuous Optimization, Estrada Dona Castorina 110, Jardim Botanico, Rio de Janeiro, RJ, CEP 22460-320, Brazil, FAX: (55)-(21)-2529-5129

Organizing Committee: Rolando Garciga Otero, UFRJ; Mauricio Graca Drummond, UFRJ; Fernanda Raupp, PUC/RJ; Benar Fux Svaiter, IMPA; Yuan Jin Yun, UFPR

Plenary Speakers:

Hedy Attouch (Universite de Montpelier, France), Alfred Auslender (Universite de Lyon, France), Regina Burachik (University of Southern Australia, Australia), Alvaro de Pierro (Universidade Estadual de Campinas, Brazil), Jonathan Eckstein (Rutgers University, USA), Clovis Gonzaga (Universidade Federal de Santa Catarina, Brazil), Andreas Griewank (Humboldt Universitat, Germany), Alexei Izmailov (Moscow State University, Russia), Jose Mario Martinez (Universidade Estadual de Campinas, Brazil), Renato Monteiro (Georgia Institute of Technology, USA), Boris Mordukhovich (Wayne State University, USA), R.T. Rockafellar (University of Washington, USA), Alberto Seeger (Universite de Avignon, France), Mikhail Solodov (Instituto de Matematica Pura e Aplicada, Brazil), Benar Fux Svaiter (Instituto de Matematica Pura e Aplicada, Brazil), Yuan Jin Yun (Universidade Federal de Parana, Brazil)

Call for Papers

- ### Decision Support Systems: Special Issue "New Concepts, Methodologies and Algorithms for Business Education and Research in the 21st Century"

www.elsevier.com/authored_subject_sections/S03/S03_cfp/DECSUP_CfP_Dyson_NewConcepts.pdf

 [A] Scope of Special Issue This special issue is prepared to celebrate the 95th birthday of Professor William W. Cooper (University of Texas at Austin). Professor Cooper has dedicated his whole life to the development of various methodologies and concepts in business education and research. He made a major contribution to the initial stages of linear programming, goal programming, stochastic programming, non-linear programming and multi-objective optimization. Later, he has extended the technique of linear programming and non-linear programming into the development of data envelopment analysis (DEA) which has been widely applied to performance analysis in public and private sectors. The contributions of Professor Cooper are not limited in the development of methodology for business. He has also developed important business-related concepts and research areas such as management science, decision support systems, managerial accounting and auditing, all of which serve currently as pedagogical and research bases in modern business and business education. The research (messages) initiated by Professor Cooper has been extended and reformed into various types of new sciences and academic disciplines. This special issue reviews the original motivation concerning how Professor Cooper has developed various new sciences. Then, the special issue discusses new developments in concepts and methods for private and public sector managements in the 21st century. We also look for new algorithms related to such conceptual and methodological developments. The goal of this special issue is not limited to DEA and the other concepts and methodologies related to Professor Cooper. Rather, this special issue looks for other types of new concepts, models and methodologies for modern business, industry and public sector management. In particular, this special issue searches for new methodological developments, new theoretical extensions and var-

ious applications in multi-disciplinary areas (e.g., business information technology). A linkage to modern information technology is highly recommended. Consequently, this special issue is aimed to open up new research areas for Decision Support Systems in the 21st century.

[B] Guest Editors (in alphabetical order) Guest Editors: Dr. Robert Dyson (Warwick University in England), Dr. Fred Glover (University of Colorado in USA), Dr. Yuji Ijiri (Carnegie Mellon University in USA) and Dr. Andrew Whinston (University of Texas in USA). Managing Office: Toshiyuki Sueyoshi (New Mexico Institute of Mining Technology in USA and National Cheng Kung University in Taiwan)

[C] Schedule and Submission Due Date of Manuscript Submission: December 15, 2008. All the submissions should be directed to T. Sueyoshi (toshi@nmt.edu). Manuscripts should follow the submission format of Decision Support Systems. The detailed guide for authors is available at

http://www.elsevier.com/wps/find/journaldescription.cws_home/505540/description♯description

Awards and Nominations

- ## EURO Distinguished Service Medal 2009

  http://www.euro-online.org/display.php?page=edda1

The EDSM (EURO Distinguished Service Medal) is awarded for recognition of distinguished service to the Association of European OR Societies (EURO) and to profession of OR. The award will be officially delivered at the Opening Session of the 2009 EURO Conference (Bonn, July 5-8, 2009).

Eligibility: The EDSM 2009 will be given to an individual who has served the European OR community and the profession effectively for many years. No currently active officer of EURO (Executive Committee member, EDSM 2009 jury member, Organising and Programme Committees Chairpersons of the EURO 2009 Conference) is eligible.

Award: The laureate will receive a medal, a diploma and will be invited to all future EURO Conferences without payment of the registration fees.

Selection process: The EURO member national societies Presidents and the EURO Working Groups Coordinators are kindly invited to send the EDSM jury nominations on possible award recipients.

The jury will evaluate the proposed candidates essentially on basis of their distinguished services to EURO and to the profession of OR.

Jury:

- Paolo Toth (Chairman),

- Tuula Kinnunen (member),

- Zilla Sunuany-Stern (member),

- Alexis Tsoukias (member),

- Dominique de Werra (member).

Deadlines: January 31, 2009.

The decision of the jury will be communicated to the EDSM laureate within March 5, 2009.

The decision of the jury will be publicly announced at the Opening Session of the 2009 EURO Conference (Bonn, July 5-8, 2009).

Contact: Paolo Toth, DEIS, University of Bologna, Viale Risorgimento 2, 40136 Bologna, Italy
Tel: +39 051 2093028
Fax: +39 051 2093073
Email: paolo.toth@unibo.it

- # EURO Doctoral Dissertation Award EDDA 2009

http://www.euro-online.org/display.php?page=edda1

The EDDA (EURO Doctoral Dissertation Award) is a EURO instrument consisting in a prize that is awarded at each EURO-K conference. The purpose of the prize is to distinguish an outstanding PhD thesis in Operational Research defended in the countries having an OR society that is member of EURO. It will be awarded for the fourth time at the closing session of the EURO 2009 conference (Bonn, July 5-8, 2009).

Eligibility of applications:

The EDDA 2009 jury will only consider PhD theses in Operational Research defended between 15 February 2007 (i.e., the deadline for the preceding edition of the prize) and 15 January 2009 (the deadline for the present edition). The dissertation should have been defended in a University located in a member country of EURO. The author of the dissertation should be a member of a member society of EURO. To be considered, a dissertation should be nominated by the supervisor of the thesis (one of them in case of multiple supervisors). The supervisor of the dissertation is asked to provide the jury with the following information: 1. The text of the dissertation, 2. An extended abstract (up to 5 pages) of the dissertation; this abstract should be written in English and should include precise keywords, 3. If the dissertation is not written in English, a paper in English authored (or co-authored) by the author of the dissertation and describing the core ideas of the thesis. This paper should preferably have been published in or submitted to an international journal, 4. Nomination letters (or reports) from two referees selected by the dissertation supervisor, supporting the submission and stating their assessment of why the thesis should win the award, 5. An up-to-date CV of the candidate, including a list of publications. No nomination will be considered without these items. All information should be sent to the chairman of the jury (Denis Bouyssou: bouyssou@lamsade.dauphine.fr) in electronic form using a compressed format to save space and bandwidth. Since many PhD theses in OR are defended each year, the jury would like to remind supervisors that only outstanding pieces of work have a reasonable chance of winning the award.

Jury: 1. Denis Bouyssou (Chairman), 2. Mikael Rцnnqvist (Chairman of the 2010 edition of the EDDA), 3. Jacques Teghem (Chairman of the 2012 edition of the EDDA),

4. Silvano Martello, 5. Hartmut Stadtler.

Selection process: The selection process consists in two phases.

Phase 1: The jury studies each application and selects a short list of three finalists. The jury evaluates the applications taking the following points into account:

- Originality and novelty of the subject,

- Pertinence of the subject for OR,

- Depth and breadth of the results,

- Contributions of the dissertation to the theory and practice of OR,

- Applications and/or potential applicability of the results,
  item Quality of the related publications.

Phase 2: The three finalists are invited to present their contribution in front of the jury and any other interested participant during a special EDDA session scheduled at the EURO 2009 conference (July 5-8, 2009, Bonn, Germany). The jury selects the final laureate after the session. Award The final winner will receive 1000 ₤ and a certificate. The three finalists are granted the early registration fee at the EURO 2009 conference, at which they will register. EURO will also contribute to their travel and journey expenses.

Deadlines:

The deadline for submitting applications is 15 January 2009. The nomination of the three finalists will be made public before 15 April 2009.

Contact:

Denis BOUYSSOU
CNRS - LAMSADE UMR7024 Universite Paris Dauphine Place du Marechal de Lattre de Tassigny F-75775 Paris Cedex 16 - France
Tel : + 33 1 44 05 48 98
Fax : + 33 1 44 05 40 91
http://www.lamsade.dauphine.fr/ bouyssou/

• EURO Gold Medal 2009

http://www.euro-online.org/display.php?page=gold2

Call for nominations

1. The EURO Gold Medal is the highest distinction within OR in Europe. It is conferred on a prominent person for an outstanding contribution to the Operational Research science. The award will be officially bestowed at the opening plenary session of the EURO XXIII Conference in Bonn, if there is a suitable candidate.

2. The EURO Gold Medal shall be awarded for a body of work in operational research, preferably published over a period of several years. Although recent work should not be excluded, care should be taken to allow the contribution to stand the test of time. The potential prize recipient should have a recognized stature in the European OR community. Significance, innovation, depth, and scientific excellence should be stressed.

3. To emphasize the European flavour of the Award, all societies are strongly urged not to propose a candidate from their own country. No currently active officer of EURO (Executive Committee member, EURO Gold Medal jury member, Organizing and Programme Committees Chairpersons of the EURO XXIII Conference) is eligible.

4. Nominations for the 2009 EURO Gold Medal can come from EURO member national societies, the previous EURO Gold Medal laureates and jury chairs.

5. The jury members would appreciate receiving nominations with the items of information listed on the attached form entitled "Nomination for 2009 EURO Gold Medal".

6. Nominations should be sent to the chair of the jury.

Jury of the EURO Gold Medal 2009:

- Aharon Ben-Tal (Israel)

- Onno J. Boxma (The Netherlands)

- Georg Ch. Pflug (Austria)

- András Prékopa (Hungary, USA)-chairman

- Laurence Wolsey (Belgium)

Chair of the Jury:

Prof. András Prékopa RUTCOR, Rutgers Center for Operations Research 640 Bartholomew Road Piscataway, NJ 08854-8003, USA
Tel. (732) 445-5632, fax: (732) 4455472
E-mail: prekopa@rutcor.rutgers.edu

Important notice: To emphasize the European flavor of the Award, all societies are strongly urged not to propose a candidate from their own country.

DEADLINE: Nominations should be sent before December 31, 2008.

- # EURO Excellence in Practice Award 2009: EPA 2009

http://www.euro-online.org/display.php?page=bap2

Purpose: The purposes of the competition are to:

- recognize outstanding accomplishments in the practice of Operational Research,

- attract more application-oriented papers to EURO Conferences,

- promote the practice of Operational Research in general.

Guidelines: All interested authors are invited to submit papers describing an application of Operational Research which has original features, whether in methodology, application or implementation. The age limit for the papers is four years. The papers must not have been submitted concurrently to another competition. The invitation is open to Operational Research specialists from any part of the world. EVALUATION CRITERIA The criteria for the evaluation of the papers are:

- scientific quality,

- relevance to Operational Research,

- originality in methodology, implementations and/ or field of application,

- a real impact to practice,

- appreciation by the organization involved with the application.

Strong preference will be given to published papers. Letters of appreciation are important.

The process: The jury selects a short-list of finalist papers which will be presented in a special session of the EURO Conference 2009 in Bonn. There is no registration fee for one author of each of the finalist papers. The winner will be determined by the jury at the end of the special session and will be announced by the chairman of the jury during the closing session of the EURO Conference.

The prise: The prize for the winners is

- a distinct honor that in material terms consists of;

- a certificate of excellence in OR practice for each author of the paper and for the concerned organization,

- an amount of 3,000 EUR for the authors.

The jury:

Chair: Chief research scientist Dr. Geir Hasle, SINTEF, Oslo, Norway Geir.Hasle@sintef.no

Members of Jury:

Prof. Dr. Edmund Burke, University of Nottingham, UK ekb@cs.nott.ac.uk

Prof. Dr. Oli Madsen, DTU, Lyngby, Denmark ogm@ctt.dtu.dk

Prof. Dr. Maria Grazia Speranza, University of Brescia, Italy speranza@eco.unibs.it

Prof. Dr. Stavros A. Zenios, University of Cyprus, Nicosia, CY zenioss@ucy.ac.cy

Submission:

Please inform the chairman or any other member of the Jury by email about the details of your submission.

Deadline: 31 JANUARY 2009

Books and Special Issues

- Special issue of Optimization Methods and Software

  Preface: It is our great pleasure to present Part I of the special issue of Optimization Methods and Software, composed of carefully peer-reviewed papers presented at the "Joint EUROPT-OMS Conference: 2nd Conference on Optimization Methods Software and 6th EUROPT Workshop Advances in Continuous Optimization". Part II will appear next year.

  This conference took place in Prague, Czech Republic, on July 4-7, 2007. It was the first joint Meeting organized by the Working Group on Continuous Optimization (EUROPT) of the Association of European Operational Research Societies (EURO) and the journal Optimization Methods and Software. The conference was organized in cooperation with EURO, SIAM and its Activity Group on Optimization, and INFORMS Optimization Society. It was attended by about 160 participants who delivered 150 presentations. The plenary speakers of this event were Frederic Bonnans (INRIA, France), Yury Evtushenko (Academy of Sciences, Russia), Komei Fukuda (EPF Lausanne and ETH Zurich, Switzerland), Dorit Hochbaum (University of California, USA), Tibor Illes (Eotvos Lora

  nd University, Hungary), Michal Kocvara (University of Birmingham, UK), Adrian Lewis (Cornell University, USA), Carlo Mannino (University of Rome, Italy), Alexander Martin (Technical University of Darmstadt, Germany), Florian Potra (University of Maryland, USA), Liqun Qi (The Hong Kong Polytechnic University, China), Philippe Toint (University of Namur, Belgium) , Stefan Ulbrich (Technical University of Darmstadt, Germany), Stephen Wright (University of Wisconsin, USA), Yinyu Ye (Stanford University, USA), and Ya-xiang Yuan (Academy of Sciences, China).

  The papers in this special issue deal with a variety of topics within the area of optimization and applications. Part I contains 11 papers and is organized as follows.

  The paper of Apostolopoulou, Sotirpoulos and Pintelas concerns the solution of quadratic trust-region subproblems where the Hessian is approximated by a low-memory BFGS matrix. A direction of negative curvature in closed form is obtained in the hard case.

  The paper by Astorino, Fuduli and Gorgone is devoted to pattern classification problems in the framework of nonsmooth optimization. The authors show how bundle methods can be applied to these machine learning problems.

  The paper by Casado, Martinez, Garcia and Hendrix focuses on Branch-and-Bound interval global optimization and studies ways to exploit the potential parallelism of algorithms.

The paper by Han, Qi and Wu presents an algebraic method for computing fastest and slowest diffusion values in diffusion kurtosis imaging, which is a recently developed magnetic resonance imaging model.

The paper by Hendrix and Olieman presents an analysis of robustness and its optimization, in which the robustness has been measured using a finite set of Monte Carlo samples of values.

In his paper, Hladнk provides sensitivity analysis for a class of multi-objective linear programming. He proposes a procedure to compute a tolerance such that certain efficient solutions of the problem remain unchanged within this tolerance.

Hochbaum and Moreno-Centeno use the separation-deviation model to obtain country credit-risk ratings and show some of the advantages of using this approach as compared to other methods.

Luo, Sun and Wu present new convergence properties of the primal-dual methods based on Rockafellar and Wets's augmented Lagrangian function for inequality constrained global optimization problems.

Redondo, Fernandez, Garcia and Ortigosa discuss a planar single-facility competitive location and design problem and discuss four parallel implementations of an evolutionary global optimization algorithm.

In her paper, Sukhorukova generalizes the classical Remez algorithm to the problem of linear spline approximation with certain specific conditions on the spline parameters.

The paper by Toledo provides a symmetric approach to the Lipschitz properties of the primal and dual optimal value functions in the setting of linear semi-infinite programming.

Many people contributed to make this special issue possible. First, of course, we are grateful to the contributors. Second, we thank the referees for their careful reviews and their cooperation in meeting tight deadlines. Finally, we would like to thank the Editor-in-Chief, Oleg Burdakov, for his patient assistance and guidance during the editorial process.

Regina S. Burachik, School of Mathematics and Statistics,University of South Australia, Adelaide-Australia;

Joerg Fliege, The University of Southampton, Centre of Operational Research, Management Science and Information Systems,Southampton-United Kingdom;

Michal Kocvara, School of Mathematics, University of Birmingham, Birmingham-United Kingdom

- MMOR Special Issue dedicated to the EURO Summer Institute ESI XXIV: Optimization Challenges in Engineering: Methods, Software, and Applications

In August 2006, the EURO Summer Institute ESI XXIV on Optimization Challenges in Engineering: Methods, Software, and Applications was held in Lutherstadt Wittenberg, Germany.

Now a special issue of the journal Mathematical Methods of Operations Research (MMOR) dedicated to this event has been released.

EURO Institutes are organized on an annual basis by EURO, the Association of

European Operational Research Societies. For two weeks, they bring together 20 to 30 carefully selected junior scientists and give them the opportunity of joint discussions, of forming networks with international colleagues, and

of meeting renowned researchers in their field. This is accomplished by a combination of an inspiring scientific program with interesting social activities.

The participants' research topics were relatively widespread and covered different theoretical aspects in continuous optimization as well as a variety of engineering applications. This includes, for instance, nonsmooth Newton methods, interior point approaches, multicriteria optimization theory, as well as various applications, for example, engineering design, data mining, telecommunication, routing problems and structural optimization. This diversity is also reflected in the special issue.

The special issue is: Mathematical Methods of Operations Research 68 (2/3), 2008.

The preface can be found at http://dx.doi.org/10.1007/s00186-008-0217-x

Job opportunities

- The Mathematics and Computer Science (MCS) Division at Argonne National Laboratory invites outstanding candidates to apply for a postdoctoral position focusing on Mixed-integer nonlinear programming (MINLP). The successful candidate will work on a joint project with the University of Wisconsin - Madison.

  Candidates should have a background in one or more of the following: optimization, numerical analysis, linear algebra, scientific computing, and C/C++. Experience with integer or nonlinear optimization techniques and modeling languages such as AMPL and GAMS is a plus.

  Candidates should submit an application via the Argonne website under division postdoctoral job openings for job requisition MCS-313702. The application must include a curriculum vitae; list of publications, abstracts, and significant presentations; and the names of three references.

  For further information about postdocs at Argonne, see
  http://www.anl.gov/jobsearch/detail.jsp?userreqid=313702+MCSlsBrowse=POSTDO C
  Questions can also be addressed to Sven Leyffer, or Todd Munson, MCS Division, by e-mail to leyffer@mcs.anl.gov or tmunson@mcs.anl.gov

- CMU-Portugal ICTI Program in Applied Mathematics

  The CMU-Portugal ICTI Program in Applied Mathematics offers Ph.D. and postdoctoral training in Applied Analysis and in Probability, Stochastic Analysis and their Applications. Ph.D. graduates of the program will earn two doctoral degrees, one from Carnegie Mellon University and the other from the Portuguese partners in association, currently the Universidade Tecnica de Lisboa (UTL) through the Instituto Superior Tĭcnico (IST), the Universidade de Lisboa (UL) through the Faculdade de Cиκncias (FCUL), and the Universidade Nova de Lisboa (UNL) through the Faculdade de Cиκncias e Tecnologias (FCTUNL).

Problems and Teaching Activities

This section is directed to students and to whom is interested in teaching material that is not easily available elsewhere. It is the case of the following note about the proof of the quadratic convergence (under particular conditions) of the Newton's method which it is not common in text books.

A short proof of the Newton-Kantorovich theorem
Domingos M Cardoso[1] and Luís A Vieira [2]

Basic notions Consider a nonempty open convex subset $C \subseteq \mathbb{R}^n$. Then a function $f : C \to \mathbb{R}$ is m-strongly convex in C if it has second derivatives on C and $\exists m > 0$ such that

$$\forall x \in C \qquad m\|h\|^2 \ \leq \ h^T \nabla^2 f(x) h \ \ \forall h \in \mathbb{R}^n, \tag{1}$$

where $\nabla^2 f(x)$ denotes the Hessian matriz of f in x. It is immediate that every strongly convex function is strictly convex, however the converse is not true. For instance, the function $f : \mathbb{R} \to \mathbb{R}$, such that $f(x) \mapsto x^{2k}$, with $k \in \mathbb{N} \setminus \{1\}$, is strictly convex but it is not strongly convex (since its second derivative in $x = 0$ is null and then (1) is not fulfilled). It is also immediate that the Hessian matrix of each strongly convex function is positive definite and then it is invertible.

Lemma 1. *If $C \subseteq \mathbb{R}^n$ is a nonempty open convex subset and the function $f : C \to \mathbb{R}$ is m-strongly convex in C, then*

$$\|(\nabla^2 f(x))^{-1}\| \leq \frac{1}{m},$$

where $\|A\| = \sup_{h \neq 0} \frac{\|Ah\|_2}{\|h\|_2}$.

Proof. $\|(\nabla^2 f(x))^{-1}\| = \sup\limits_{y \neq 0} \dfrac{\|(\nabla^2 f(x))^{-1} y\|_2}{\|y\|_2} = \sup\limits_{\nabla^2 f(x)h \neq 0} \dfrac{\|h\|_2}{\|\nabla^2 f(x)h\|_2} = \dfrac{1}{\inf\limits_{h \neq 0} \frac{\|\nabla^2 f(x)h\|_2}{\|h\|_2}}$ (since $h \neq 0 \Leftrightarrow \nabla^2 f(x)h \neq 0$). Taking into account that $\forall h \in \mathbb{R}^n \setminus \{0\}$

$$m\|h\|_2^2 \leq h^T \nabla^2 f(x) h \leq \|h\|_2 \|\nabla^2 f(x)h\|_2 \Rightarrow m \leq \frac{\|\nabla^2 f(x)h\|_2}{\|h\|_2},$$

---

[1]University of Aveiro, Portugal (dcardoso@ua.pt)
[2]University of Porto, Portugal (lvieira@fe.up.pt).

it follows $m \leq \inf\limits_{h \neq 0} \dfrac{\|\nabla^2 f(x)h\|_2}{\|h\|_2} \Leftrightarrow \dfrac{1}{\inf\limits_{h \neq 0} \dfrac{\|\nabla^2 f(x)h\|_2}{\|h\|_2}} \leq \dfrac{1}{m}$ and therefore, $\|(\nabla^2 f(x))^{-1}\| \leq \frac{1}{m}$. ∎

Consider the nonempty subset $D \subseteq \mathbb{R}^n$. Then a function $F : D \to \mathbb{R}^m$ is Lipschitzian in D, with constant of Lipschitz L, if $\forall x, y \in D$ $\|f(x) - f(y)\| \leq L\|x - y\|$.

Lemma 2. *If $C \subseteq \mathbb{R}^n$ is a nonempty open convex subset, the function $f : C \to \mathbb{R}$ has second derivatives on C and $\nabla^2 f(x)$ is Lipschitzian with constant of Lipschitz L, then $\forall h \in \mathbb{R}^n$, such that $x + h \in C$,*

$$\|\nabla f(x + h) - \nabla f_x(h)\| \leq \frac{L}{2}\|h\|^2, \tag{2}$$

where $\nabla f(y)$ denotes the gradient of f in y and $f_x(h) = f(x) + (\nabla f(x))^T h + \frac{1}{2}h^T \nabla^2 f(x)h$ is the quadratic approximation of the function f in a neighborhood of x in C.

Proof. First, it should be noted that $\nabla f_x(h) = \nabla f(x) + \nabla^2 f(x)h$, and then $\nabla f(x + h) - \nabla f_x(h) = \nabla f(x + h) - \nabla f(x) - \nabla^2 f(x)h$. Therefore,

$$
\begin{aligned}
\|\nabla f(x + h) - \nabla f_x(h)\| &= \|\nabla f(x + h) - \nabla f(x) - \nabla^2 f(x)h\| \\
&= \|\int_0^1 \nabla^2 f(x + th)h\, dt - \nabla^2 f(x)h\| \\
&= \|\int_0^1 (\nabla^2 f(x + th) - \nabla^2 f(x))h\, dt\| \\
&\leq \int_0^1 \|\nabla^2 f(x + th) - \nabla^2 f(x)\|\|h\|\, dt \\
&\leq \int_0^1 Lt\|h\|^2\, dt. \\
&= \frac{L}{2}\|h\|^2.
\end{aligned}
$$

∎

The Newton-Kantorovich theorem

Consider the function $f : \mathbb{R}^n \to \mathbb{R}$ with continuous second derivatives and its quadratic approximation in a neighborhood of $x^k \in \mathbb{R}^n$,

$$f_{x^k}(h) = f(x^k) + (\nabla f(x^k))^T h + \frac{1}{2}h^T \nabla^2 f(x^k)h.$$

If $\nabla^2 f(x)$ is invertible, then the well known Newton's iterates

$$x^{k+1} = x^k - (\nabla^2 f(x^k))^{-1}\nabla f(x^k), \quad k = 0, 1, \ldots, \tag{3}$$

follows since the critical point that solves the system of equations $\nabla f_{x^k}(h) = 0 \Leftrightarrow \nabla f(x^k) + \nabla^2 f(x^k)h = 0 \Leftrightarrow \nabla^2 f(x^k)h = -\nabla f(x^k)$ is $h = -(\nabla^2 f(x^k))^{-1}\nabla f(x^k)$. The Newton-Kantorovich theorem states some conditions that assure the convergence of the Newton's iterates (3), $x^{k+1} = x^k + h$, to a critical point of f.

Theorem. *Consider a nonempty open set $C \subseteq \mathbb{R}^n$ and a function $f : \mathbb{R}^n \to \mathbb{R}$ with second derivatives in C. Assuming that $\nabla^2 f(x)$ is a Lipschitzian function with Lipschitz constant L, if the function f is m-strongly convex in a open ball with center in a critical point x^* and radius $\frac{m}{L}$, $B(x^*, \frac{m}{L}) \subset C$, then $\forall x^0 \in B(x^*, \frac{m}{L})$ the sequence (3) has quadratic convergence to x^*.*

Proof. If x^{k+1} is determined from x^k, according to (3), then

$$
\begin{aligned}
x^{k+1} - x^* &= x^k - (\nabla^2 f(x^k))^{-1}\nabla f(x^k) - x^* \\
&= x^k - x^* - (\nabla^2 f(x^k))^{-1}\nabla f(x^k) + (\nabla^2 f(x^k))^{-1}\nabla f(x^*) \\
&\qquad\qquad\qquad (\text{notice that } \nabla f(x^*) = 0) \\
&= (\nabla^2 f(x^k))^{-1}\nabla^2 f(x^k)(x^k - x^*) - (\nabla^2 f(x^k))^{-1}\nabla f(x^k) \\
&\qquad\qquad\qquad + (\nabla^2 f(x^k))^{-1}\nabla f(x^*) \\
&= (\nabla^2 f(x^k))^{-1}[\nabla^2 f(x^k)(x^k - x^*) - (\nabla f(x^k) - \nabla f(x^*))].
\end{aligned}
$$

Therefore, assuming $x^k \in B(x^*, \frac{m}{2^s L})$, with $s \geq 0$, it follows

$$
\begin{aligned}
\|x^{k+1} - x^*\| &= \|(\nabla^2 f(x^k))^{-1}[\nabla f(x^*) - \nabla f(x^k) - \nabla^2 f(x^k)(x^* - x^k)]\| \\
&\leq \|(\nabla^2 f(x^k))^{-1}\|\|\nabla f(x^*) - \nabla f(x^k) - \nabla^2 f(x^k)(x^* - x^k)\| \\
&\leq \frac{1}{m}\|\nabla f(x^*) - \nabla f(x^k) - \nabla^2 f(x^k)(x^* - x^k)\| \text{ (by Lemma 1)} \\
&\leq \frac{L}{2m}\|x^* - x^k\|^2 \text{ (by Lemma 2)} \\
&< \frac{L}{2m}\frac{m^2}{2^{2s}L^2} = \frac{m}{2^{2s+1}L} \text{ (since } \|x^* - x^k\| < \frac{m}{2^s L}).
\end{aligned}
$$

Thus $x^k \in B(x^*, \frac{m}{2^s L}) \Rightarrow x^{k+1} \in B(x^*, \frac{m}{2^{2s+1}L})$ and since, by hypothesis, $x^0 \in B(x^*, \frac{m}{L})$, then

$$
x^0 \in B(x^*, \frac{m}{L}) \Rightarrow x^1 \in B(x^*, \frac{m}{2L}) \Rightarrow x^2 \in B(x^*, \frac{m}{2^3 L}) \Rightarrow x^3 \in B(x^*, \frac{m}{2^7 L}) \Rightarrow \cdots.
$$

Furthermore, since $\|x^{k+1} - x^*\| \leq \frac{L}{2m}\|x^k - x^*\|^2 \Leftrightarrow \frac{\|x^{k+1} - x^*\|}{\|x^k - x^*\|^2} \leq \frac{L}{2m}$, the sequence of Newton iterates (3) has quadratic convergence. ■

Editor's personal comments

Dear colleagues, dear members of EUROPT. I am happy to be elected for the Managing Board (MB) of our Euro Working Group. I am grateful to the Chair, Professor Marco Lopes, and to all other friends from MB for their kind invitation and confidence that was given to me. It is my privilege to assume the honor of editing our EUROPT Newsletter, jointly with my dear friend Tatiana Tchemisova. This duty, despite of being a reason for my great concern, is also a motivation to work with enthusiasm. It is hard to substitute our dear colleague Kaisa Miettinen who has been the unchanged editor of EUROPT Newsletter since the very beginning during two years (the first issue appeared on October 2006). Thank you so much dear Kaisa for your dedication and for keeping all of us close to each other, connected and updated. *Close, connected and updated* will be the motto of our work as editors.

We intend to maintain the structure of the newsletter developed by Kaisa Miettinen, adding two new sections which we would like to publish with regularity: 1) Calls for Collaboration Research (including proposals for research activities, joint projects, research visits and working meetings); 2) Problems and Teaching Activities (including problem's statements, solutions, short texts about specific topics and short proofs of fundamental results with personal flavours).

In this connection we apply to all the EUROPT members to collaborate with us and send the material that can be included in these sections. In the present issue we include only the new section devoted to problems and teaching activities with a launching note, produced in collaboration with Prof. Luis Vieira from University of Porto, about a short proof of the quadratic convergence of the Newton's method.

Collaboration of all the members of EUROPT is a necessary and fundamental condition for the continuation of regular publication of EUROPT Newsletter. We look forward your contributions. All comments, suggestion, information, advertisements, etc, are very welcome.

We are grateful to all EUROPT members who participated in the preparation of this Newsletter and we send our special thanks to Kaisa Miettinen.

On behalf of the Editorial Board of EUROPT Newsletter,
Domingos M Cardoso

EUROPT Newsletter
Editorial Board: Domingos M Cardoso, Tatiana Tchemisova
Co-workers: Gerhard-Wilhelm Weber, Basak Akteke Ozturk