Newsletter 31 of EUROPT

EUROPT - The Continuous Optimization Working Group of EURO

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

January 2015

In this issue:

Words from the Chair

Dear Colleagues,

On behalf of the EUROPT Managing Board let me welcome you to the 31st EUROPT Newsletter and wish all of you fruitful and happy Year 2015.

In this issue please find the report of OR conference of the German Operations Research Society, announcements and call for papers of forthcoming scientific events, and calls for nominations.

EUROPT Managing Board and EUROPT Members are taking part in organization of several scientific events this year. Let me draw your attention to the joint ORSC/EURO International Conference 2015 on Continuous Optimization, which will be held in Shanghai, May 10-12, 2015. The conference fee is 100EUR and accommodation is not expensive too. This would balance a longer flight, and therefore the required budget is not much different to taking part in European conferences. It is a very good opportunity to visit Shanghai. You will find additional information on the conference in the call for papers in this Newsletter and you may also consult the homepage of the conference for further details. The program committee has selected prominent invited speakers and you may find the abstracts of the invited talks at the homepage of the conference. Let me invite all of you to take part in this conference co-organized by EUROPT. Deadline for abstract submission is approaching: February 13, 2015. As for other EURO and EUROPT events abstracts must be submitted through EURO Abstract Submission System.

Let me also draw your attention to the call for nominations of EUROPT Fellow 2015. EUROPT honors outstanding researchers in continuous optimization by this award. Previous EUROPT Fellows are professors A. Rubinov, G. Still, C. Roos, A. Bagirov, Y. Nesterov, J.E. Martinez-Legaz, J.J. Judice, and I. Bomze. Please look at the nomination criteria in the call and send your nomination letters of no more that two pages describing on how these criteria are met together with a short CV of the candidate to me by January 31.

Please enjoy reading the Newsletter and we look forward to hearing from you about your thoughts on the Newsletter and material to be included in the next issue.

Julius Žilinskas, Chair, EUROPT Managing Board

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Report of OR 2014, the conference of the German Operations Research Society

Revelations from Charlemagne's Medieval Capital

This year's international conference of the German Operations Research Society (GOR) was held from September 2 to September 5, 2014 in the historical city of Aachen and was hosted by the local RWTH Aachen University - one of Germany's top research universities.

Some of the world's leading authorities in the field of operations research made their way to Aachen to give plenary talks. Brenda Dietrich from the IBM Watson Group addressed in her talk the topic of cognitive computing in the era of big data sets, Michael Trick from Carnegie Mellon University in Pittsburgh presented some interesting applications of combinatorial and data mining techniques to scheduling problems arising in professional and college sports leagues, and finally, David Barber from University College London gave an overview of some of the techniques involved in deep learning theory - a recently emerged branch of neural networks with many promising applications. Thanks to the conference chair Marco Lübbecke and the local program committee the range of the conference lectures offered spread across the whole spectrum of topics reaching from rather methodological ones such as combinatorial optimization, equilibrium problems, robust optimization or mixed-integer programming to more applied ones such as revenue management, scheduling problems, smart electricity markets, auction theory and many others.

As a part of good tradition, each GOR conference is equipped with a theme to pay attention to one of the emerging OR topics. This time the organizing committee chose **Business Analytics and Optimization** to be focused on. How can we better exploit historical information to come up with better decisions that are more robust against data inaccuracies and uncertainties? What patterns and secrets do we discover in the data that may even help establishing new business models and new services? These two questions were proposed by the organizing committee in order to address the issue of "big data?", recently becoming more and more important within the OR community. As it has been perfectly pointed out by Michael Trick, optimization helps us to get a job (since it provides better solutions for practitioners), and business analytics helps us to held the job (since it uses big data to adjust the solution for practitioners' needs). The fruitful use of the OR methods in industry has been highlighted by various business success stories presented. An important part of the conference also targeted young professionals, who immersed in their academic pursuits, also need to be reasonably supported and advised during their beginning careers. The emerging scholar program and the dissertation award ceremony only proves that the OR community is well interested in the future development of these young people. The majority of the talks took place in the Kármán auditorium - a university building complex named after a famous aerospace engineer and a pioneer of modern aerodynamics Theodore von Kármán, who taught and died in Aachen in 1963.

The year 2014 is the year of Charlemagne and the city of Aachen commemorates the 1200th anniversary of Charlemagne's death. Aix-la-Chapelle, which is the French name for the city

of Aachen, organised for this special occasion three stunning temporary exhibitions "Places of Power", "The Art of Charlemagne" and "Lost Treasures", which honour the enormous significance of Charlemagne and the Carolingian Empire for the whole European history. Many conference participants visited these exhibitions as part of the immensely rich social program which began already on the first conference day with an informal get together and a barbecue. The Aachen reception took place on Wednesday in the Aula Carolina, which is a former catholic church first mentioned already in 13th century, and is used nowadays by the local traditional Kaiser Karls grammar school. The conference dinner at the Hotel Pullmann, Aachen Quellenhof was accompanied by the local jazz music ensemble "Klangfahrer". For everyone interested in the history, the social program offered a few spectacular tours in and around Aachen to participate in, as for example the "Tour of the Old Town" or the "Guided Tour of the Cathedral". Both of them necessarily lead to or at least circled around the Aachen Cathedral - the oldest cathedral in northern Europe, which has been the coronation church for German kings for almost 600 years. Inside highly adorned, it houses a whole range of precious medieval art objects such as the "Barbarossa chandelier", the "Marienschrein", the golden altar frontal "Pala d'Oro" or the throne of Charlemagne. The Palatine Chapel, the original part of the today's Aachen Cathedral conceals a great deal of bible number symbolism and many mathematical symmetries and it surely filled every conference participant who entered this sacred place with excitement.
The GOR 2014 conference in Aachen was a success and it touched every participant.

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Gerhard-Wilhelm Weber
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Forthcoming Events

Joint ORSC/EURO International Conference 2015 on Continuous Optimization
Shanghai, May 10-12, 2015

http://orsc-euro2015.csp.escience.cn/

Overview

Continuous optimization is a highly interconnected field, having close relationships to the other areas of OR, with scientific computing and numerical analysis, and with numerous application areas. In order to promote academic communication and cooperation between Chinese and European researchers and practitioners in the field of continuous optimization, Operations Research Society of China (ORSC) and the Association of European Operational Research Societies (EURO) will organize the Joint ORSC/EURO International Conference 2015 on Continuous Optimization during May 10-12, 2015. Dr. Xiaodong Hu (the President of ORSC) and Dr. Gerhard Wäscher (President of EURO) are co-chairs of the conference, Dr. Yuhong Dai (President of the Math Programming Subsociety of ORSC) and Dr. Julius Zilinskas (Chair of EUROPT Managing Board) are the co-chairs of program committee and Dr. Yanqin Bai (Shanghai University, Shanghai) and Dr. Gerhard-Wilhelm Weber (Middle East Technical University, Ankara) are the co-chairs of organization committee.

Invited Speakers

– Dr. Dongdong Ge (Shanghai University of Finance and Economics, China)
– Dr. Yaroslav Sergeyev (University of Calabria, Italy)
– Dr. Vladimir Shikhman (University of Leuven, Belgium)
– Dr. Yaxiang Yuan (Chinese Academy of Sciences, China)

Deadlines & Important Dates

- Abstract submissions: February 13, 2015
- Notification of acceptance of abstracts: February 27, 2015
- Online registration/room reservation: March 13, 2015 (Registration fee is 100 EUR)
- On-site registration: May 10, 2015
- Conference dates: May 11-12, 2015
- Full paper submissions for special issue: July 10, 2015
- Notification of acceptance of full papers: October 9, 2015
- Final version submissions: November 13, 2015

Conference Topics

We invite submissions on continuous optimization, including (but not limited to) the following topics:

- Linear, Nonlinear, and Convex Programming
- Equilibrium Programming
- Semidefinite and Conic Programming
- Stochastic Programming
- Complementarity and Variational Inequalities
- Nonsmooth and Variational Analysis
- Nonconvex and Global Optimization
- Optimization of Partial Differential Systems
- Applications of Optimization in Engineering, Economics, Finance, Statistics, Game Theory, and Bioinformatics
- Energy Modeling and Electric Power Market Modeling
- Optimization Over Computing Grids
- Modeling Languages and Web-based Optimization Systems

Some Important Points on Abstract Submission & Special Issue

Each attendee is allowed to submit ONE abstract for ONE talk at the conference. Abstracts must be written in English and contain no more than 600 characters (no formulas or mathematical notations are allowed). Abstracts must be submitted through EURO Abstract Submission System at http://www.euro-online.org/conf/orsc-euro-2015/. The deadline for abstract submission is February 13, 2015.

After the conference, it will be possible to submit a full paper for the special issue of the Journal of the Operations Research Society of China published by Springer. The papers must be written in English and submitted through the editorial manager system at http://www.editorialmanager.com/jorc/default.asp. The deadline for full paper submission is July 10, 2015.

Conference Venue and Website

The conference will be held in Shanghai, the largest Chinese city by population and described as the "showpiece" of the booming economy of mainland China. The conference venue is New LeHuLou Hotel in Shanghai University located in the heart of Shanghai. More information could be found at the conference website.

17th British-French-German Conference on Optimization
June 15th-17th, 2015 : Imperial College London

http://optimisation.doc.ic.ac.uk/bfg2015/

Dear Colleagues,

We would like to draw your attention to the 17th British-French-German Conference on Optimization held at Imperial College London, UK, on June 15th-17th, 2015. The conference will address all aspects of optimization and its applications, including optimization theory and algorithm design, robust and stochastic optimization, variational inequalities and convex analysis as well as applications in control theory, energy, finance, operations management and engineering. More information about the conference series, which started in Oberwolfach in 1980, can be found at http://optimisation.doc.ic.ac.uk/bfg2015. Further enquiries can also be sent to bfg2015@imperial.ac.uk.

Deadlines

- 05 Jan '15: Extended abstract submission opening
- 27 Feb '15: Proposals deadline for invited sessions
- 06 Mar '15: Submission deadline for extended abstracts
- 13 Mar '15: Notification of abstract acceptance
- 08 May '15: Early registration deadline

Plenary Speakers

- Dimitris Bertsimas, Massachusetts Institute of Technology, USA
- Regina Burachik, University of South Australia, Australia
- Michael Ferris, University of Wisconsin Madison, USA
- William Hager, University of Florida, USA
- Stefan Ulbrich, Technische Universität Darmstadt, Germany
- Michel Pierre, ENS Cachan, Antenne de Bretagne, France

Semi-Plenary Speakers

- Paul Armand, Universite de Limoges, France
- Amir Beck, The Technion, Israel
- Erick Delage, HEC Montréal, Canada
- Serge Gratton, CERFACS, France
- Karthik Natarajan, Singapore University of Technology and Design, Singapore
- Martin Skutella, Technische Universität Berlin, Germany

Organising Committee

– Ruth Misener, Imperial College London, UK
– Panos Parpas, Imperial College London, UK
– Stratos Pistikopoulos, Texas A&M University, USA
– Berc Rustem, Imperial College London, UK
– Nilay Shah, Imperial College London, UK
– Wolfram Wiesemann, Imperial College London, UK

Scientific Committee

– Danny Ralph, University of Cambridge, UK (chair)
– Henri Bonnel, Université de la Nouvelle-Calédonie, New Caledonia
– Jean-Baptiste Caillau, Université de Bourgogne & CNRS, France
– Mounir Haddou, INSA Rennes, France
– Daniel Kuhn, École Polytechnique Fédérale de Lausanne, Switzerland
– Helmut Maurer, Universität Münster, Germany
– Edouard Oudet, Université Joseph Fourier, France
– Teemu Pennanen, King's College London, UK
– Sabine Pickenhain, TU Cottbus, Germany
– Andrea Walther, Universität Paderborn, Germany
– Michael Ulbrich, TU München
– Huifu Xu, City University London, UK

13th EUROPT Workshop on Advances in Continuous Optimization
July 8-10, 2015: Edinburgh

http://www.maths.ed.ac.uk/hall/EUROPT15/

About the workshop

EUROPT 2015 is the annual event of the EUROPT continuous optimization working group of EURO. This is the 13th such workshop and is held in collaboration with the EURO 2015 conference to be held in Glasgow on July 12-15 2015.

Deadlines

- March 27 2015: Submission deadline for abstracts
- July 8-10, 2015: Workshop

Abstracts submission

Abstracts (max one page *.pdf) should be submitted to `EUROPT15@maths.ed.ac.uk`

Invited Speakers

- Sven Leyffer (Argonne National Laboratory)
- Lieven Vandenberghe (University of California, Los Angeles)
- Serge Gratton (CERFACS-IRIT, Toulouse)

Organizing Committee

- Julian Hall (Edinburgh University, Chair of the Organizing Committee)
- Didier Aussel (University of Perpignan)
- Burak Buke (Edinburgh University)
- Fabio Schoen (University of Florence)
- Sergio Garcia-Quiles (Edinburgh University)

Program Committee

- Jacek Gondzio (Edinburgh University, Chair of the Program Committee)
- Immanuel Bomze (University of Vienna)
- Frédéric Bonnans (Ecole Polytechnique)
- Roger Fletcher (University of Dundee)
- Nick Gould (Rutherford Appleton Laboratory)
- Andreas Grothey (Edinburgh University)
- Michal Kocvara (University of Birmingham)
- Peter Richtarik (Edinburgh University)
- Tamas Terlaky (Lehigh University)
- Gerhard-Wilhelm Weber (Middle East Technical University)
- Julius Zilinskas (Vilnius University)

27th European Conference on Operational Research
July 12-15, 2015: Glasgow

http://www.euro2015.org/

Overwiew

The next European Conference on Operational Research, EURO 2015: Operational Research In Practice, will take place at the University of Strathclyde's new Technology and Innovation Centre in Glasgow.

Researchers, academics, practitioners, and students interested in any branch of Operational Research, mathematical modelling or economic analysis are invited to submit abstracts or organise sessions.

Deadlines

- Abstract Submission Deadline: Monday 16th March 2015
- Conference: 12th-15th July 2015
- Registration: NOW OPEN!
- Early Bird Registration Deadline: Monday 20th April 2015

Plenary Speakers

- R. Tyrrell Rockafellar (University of Washington)
- M. Grazia Speranza (University of Brescia)
- Sir Alan Wilson (University College London)

Program Committee

- David Pisinger (Chair - Technical University of Denmark)
- Gernot Tragler (Vienna University of Technology)
- Patrick De Causmaecker (KU Leuven)
- Claudia Archetti (University of Brescia)
- Juan-José Salazar-González (Universidad de La Laguna)
- Sibel Alumur Alev (University of Waterloo)
- Marco Laumanns (IBM Research)
- Andrzej Jaszkiewicz (Poznan University of Technology)
- Anita Schöbel (Georg-August University)
- Ahti Salo (Aalto University)
- Christina Pagel (University College London)
- Boglárka G.-Tóth (Budapest University of Technology and Economics)
- Phil Jones (Defence Science and Technology Laboratory, UK)
- Val Belton (University of Strathclyde)
- Tim Bedford (University of Strathclyde)
- Marc Sevaux (Université de Bretagne-Sud)
- Sally Brailsford (University of Southampton)
- Willi Weber (Middle East Technical University)
- Daniele Vigo (Alma Mater University of Bologna)

AEP International Meeting 2015
June 10-13, 2015: Porto

About the Meeting

Each year the American Mathematical Society liaises with a host society from another country to organize a meeting, linking together members of the mathematical community from the US and abroad. The 2015 meeting will bring together the American Mathematical Society (AMS), the European Mathematical Society (EMS) and the hosting Portuguese Mathematical Society (SPM) in the UNESCO world heritage city of Porto, from which Portugal derives its name.

The scientific scope of this meeting ranges from plenary talks of general interest to special sessions focusing on current research in specific areas. There will be distinguished Invited Addresses, an evening Public Lecture and a variety of Special Sessions. The social program will include a reception and a banquet, and the organizers plan on having special social activities for the persons accompanying the participants.

Abstract submission and contributed paper session

Submission of abstracts for the special sessions and for the contributed paper session is now open. Participants who wish to submit an abstract (including those invited to speak at a special session) must:

- Go to the website http://www.ams.org/cgi-bin/abstracts/abstract.pl;
- Select Meeting #1111 Porto, Portugal;
- Choose the appropriate special session or the contributed paper session;
- Follow the step-by-step instructions on the site.

The abstract submission deadline is February 10, 2015.

ISMP 2015
July 12-17, 2015: Pittsburgh

http://www.ismp2015.org/

The 22nd International Symposium on Mathematical Programming (ISMP 2015) will take place in Pittsburgh, PA USA, July 12-17, 2015. ISMP is the world congress of mathematical optimization where scientists as well as industrial users of mathematical optimization meet in order to present the most recent developments and results and to discuss new challenges from theory and practice.

Important dates

- March 2 - Abstract Submission Deadline
- March 27 - Notification of Acceptance
- April 15 - Registration Deadline for Presenting Authors
    & Early Registration Deadline
- June 8 - Hotel Reservation Deadline

Plenary Lectures

- Laurent El Ghaoui, University of California Berkeley
- Jim Geelen, University of Waterloo, Canada
- Daniel Kuhn, Ecole Polytechnique Fédérale de Lausanne, Switzerland
- Daniel A. Spielman, Yale University
- Stephen J. Wright, University of Wisconsin-Madison

Semi-Plenary Lectures

- Samuel A. Burer, University of Iowa
- Roberto Cominetti, Universidad de Chile, Chile
- Michelangelo Conforti, University of Padova, Italy
- Tamara G. Kolda, Sandia National Laboratories
- Andrea Lodi, University of Bologna, Italy
- Asu Ozdaglar, Massachusetts Institute of Technology
- Werner Römisch, Humboldt Universität Berlin, Germany
- Frank Vallentin, University of Köln, Germany
- Pascal van Hentenryck, NICTA, Australia
- Ya-xiang Yuan, Chinese Academy of Sciences, China

EUROPT fellow 2015 - call for nominations

EUROPT honors outstanding researchers in continuous optimization by awarding the EUROPT Fellowship. The Fellowship is presented to the awarded researcher annually, at the EUROPT Workshop. The Fellow is invited to present the EUROPT Fellow Lecture as a plenary talk at the Workshop.

Each EUROPT member is eligible to nominate candidates for the Fellowship. The nomination must include a nomination letter of no more than two pages and a short CV of the candidate. The nomination material must be sent in electronic form to the current Chair of the EUROPT Managing Board no later than January 31 in the year when the Fellowship will be awarded.

The EUROPT Managing Board serves as selection committee. Based on the nominations and the resulting votes, the selection committee chooses the EUROPT Fellow.

To be nominated as EUROPT Fellow, a researcher must satisfy one or both of the following criteria:

1. Outstanding scientific contributions to continuous optimization, such as original theoretical results, innovative applications, and/or successful software development.

2. Outstanding administrative contributions to the continuous optimization community, in particular to EUROPT, such as organizing conferences, special issues, and serving at editorial boards of international scientific journals.

Members of EUROPT MBs as well as honorary chairs are not eligible to be nominated.

The photo gallery of all previous EUROPT Fellows is presented at the EUROPT web page http://europt.iam.metu.edu.tr/.

Please send your nominations to julius.zilinskas@mii.vu.lt by January 31.

EURO Awards

EURO Doctoral Dissertation Award (EDDA)
http://www.euro-online.org/web/pages/210/doctoral-dissertation-award-edda

The deadline for submitting applications is *28 February 2015*.
The jury chair and contact is Professor Hartmut Stadtler.

EURO Excellence in Practice Award (EEPA)
http://www.euro-online.org/web/pages/209/excellence-in-practice-award-eepa

The deadline for submitting material online is *28 February 2015*.
The jury chair and contact is Professor Luca Gambardella.

EURO Distinguished Service Medal Award (EDSM)
http://www.euro-online.org/web/pages/255/distinguished-service-medal-award-edsm

The deadline for nominations is *31 January, 2015.*
The jury chair and contact is Prof. Jan Weglarz,
Institute of Computing Science, Poznan University of Technology,
Plac Marii Sklodowskiej-Curie 5, Poznan, Poland, `Jan.weglarz@cs.put.poznan.pl`

EURO Gold Medal (EGM)
http://www.euro-online.org/web/pages/212/gold-medal-egm

The deadline for nominations is *31 January, 2015.*
The jury chair and contact is Ger Koole,
Department of Mathematics, VU University Amsterdam,
De Boelelaan 1081a, 1081 HV Amsterdam, The Netherlands, `ger.koole@vu.nl`

Award for the Best EJOR Paper (EABEP)
http://www.euro-online.org/web/pages/1536/guidelines

Finalists are determined by papers already published in EJOR.

Boris Polyak's 80th anniversary

Professor Boris Teodorovich Polyak, one of the outstanding Russian scientists and experts in optimization and automatic control, celebrates his 80th birthday on May 4, 2015.

He graduated from the Moscow Institute of Steel and Alloys in 1958, obtained his Ph.D. degree (Mathematics) in 1963 at Moscow State University, and his Soviet "Doctor of Sciences" degree in Engineering from the Institute of Control Problems in 1978. Starting from 1971 he works at the Institute for Control Sciences Russian Academy of Sciences.

At the beginning of his scientific activity, B.T. Polyak was concerned with the problems of optimization. He was among the pioneers of using the general methods of solution of the constrained optimization problems and the methods of minimization of nonsmooth functions.

Since the late 1980's Prof. Polyak became interested in robust stability. Some of his findings in this area (the Tsypkin-Polyak locus) are described in many textbooks on robust control. Boris Polyak pays also much attention to other challenges to the linear control theory such as the design of low-order controllers or rejection of bounded external disturbances. A decade ago he considered with success nonlinear problems such as control of chaos. Big Data, Page Rank, linear matrix inequalities technique in control, randomized algorithms and multicriteria optimization are among his recent research interests.

His monograph Introduction to Optimization which came of the press in 1983 was translated into English and published by Optimization Software in 1987. Its second edition in Russian appeared in 2014.

Among numerous awards, IFAC Fellow in 2006 and EURO Gold Medal in 2012 are worth mentioning.

Those who had a pleasure to collaborate with Boris Polyak remember his open-mindedness and remarkable personality. He influenced a few generations of Russian researches in optimization and control and his world-renowned students are grateful for his general guidance in life as well as in science.

Elena Gryazina

Institute of Control Sciences RAS, Russia

Editor's notes

Dear members of EUROPT, dear readers,

The present issue of our Newsletter at the beginning of 2015 is first of all the occasion to wish you all the best for a wonderful and fulfilling year, rich of research results.

This year will be rich in events of interest to our community. We are pleased to provide you with up-to-date informations about a number of such events. A large part of the current Newsletter issue is in fact devoted to forthcoming events. The most of deadlines for submission of contributions are approaching. Please mark these dates on your agenda and do not miss 2015 events!
In this issue, we also advertise calls for applications for two EURO awards, the one for Doctoral Dissertation and the one for Excellence in Practice, as well as call for nominations for possible award recipients for the EURO Distinguished Service Medal Award and the EURO Gold Medal. Please also consider the call for nominations for EUROPT Fellow 2015, whose deadline is the end of January.

With many thanks to everybody who contributed to this issue.

The Newsletter Editor

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