



Newsletter 35 of EUROPT

EUROPT - The Continuous Optimization Working Group of EURO

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

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Elections of the EUROPT Managing Board

Dear EUROPT Members,

Thank you very much for taking part in elections for the EUROPT Managing Board!
The results of the election are the following EUROPT MB:

- **Giancarlo Bigi**, University of Pisa
- **Sonia Cafieri**, ENAC -École Nationale de l'Aviation Civile- University of Toulouse
- **Andreas Grothey**, University of Edinburgh
- **Dmitri Kvasov**, University of Calabria
- **Edmondo Minisci**, University of Strathclyde
- **Fabio Schoen**, University of Florence
- **Julius Zilinskas**, Vilnius University

The term of this board will be July 2016 - June 2018.
We will try our best to continue the success of EUROPT working group.

Laudatio for Yaroslav Sergeyev, EUROPT fellow 2016



Yaroslav Sergeyev

University of Calabria, Italy

Head of Numerical Calculus Laboratory

Lobachevsky State University of
Nizhny Novgorod, Russia

EUROPT fellow 2016

Yaroslav D. Sergeyev is Distinguished Professor at the University of Calabria, Italy (professorship was awarded him by the Italian Government in 2002). He is also Professor (part-time contract) at Lobachevsky State University of Nizhny Novgorod, Russia. He has got his Ph.D. from Lobachevsky State University of Nizhny Novgorod and his D.Sc. degree from Lomonosov State University of Moscow at the age of 32 (this degree is Habilitation for Full Professorship in Russian universities).

His list of publications includes 233 items: 5 books, 84 papers in international journals, 62 refereed chapters of books and papers in books and proceedings of international conferences, 23 refereed articles in national journals and proceedings of national conferences, 9 refereed didactic papers, 45 technical reports, 4 patents. He is a member of editorial boards of 5 international journals publishing in the field of continuous optimization. He served as editor and co-editor of 6 special issues in the same field.

He delivered more than 60 plenary, keynote lectures and tutorials at prestigious international congresses (among them - conferences organized by EUROPT) and was Program Chair of 3 international conferences and member of Scientific Committees of more than 50 international congresses. In 2016, he is Program Chair of the major event - 2nd International Conference “Numerical Computations: Theory and Algorithms” NUMTA-2016, Italy. In 2017, Prof. Sergeyev will be Co-Chairman of the International Conference “Learning and Intelligent Optimization” LION-2017, Nizhny Novgorod, Russia. Continuous optimization is one of the main topics at both events. He was Coordinator of numerous national and international research and educational projects. Numerous magazines, newspapers, TV and radio channels have dedicated a lot of space to his research.

He was awarded several national and international prizes, including Pythagoras International Prize for Mathematics, Crotone, Italy, 2010; Honorary Fellowship, the highest distinction of the European Society of Computational Methods in Sciences, Engineering and Technology, 2015; Journal of Global Optimization Best Paper Award 2014; Achievement Award from the World Congress in Computer Science, Computer Engineering, and Applied Computing, USA, 2015; Degree of Honorary Doctor, Glushkov Institute of Cybernetics of The National Academy of Sciences of Ukraine, Kiev, 2013.

Prof. Sergeyev is one of the mostly recognized researchers in global optimization in the world. His deep results in sequential and parallel global optimization have given him a high international reputation. His 2 books in the field of continuous global optimization published in Kluwer and Springer are classics in the field.

Prof. Sergeyev was one of the first in the world to propose several classes of parallel global optimization algorithms starting from the middle of 80-ies. A deep theoretical analysis done

by Prof. Sergeyev has allowed him to introduce the concept of non-redundant parallelism for global optimization methods, to introduce new parallel methods, to implement them on several parallel computers, and to establish accurate theoretical estimates on efficiency of parallelization and convergence conditions of a new type.

One of the most remarkable results of Prof. Sergeyev is the introduction of the idea of the local tuning in Lipschitz global optimization. The necessity to balance global and local information was understood by many researches for decades but no algorithmic solutions have been proposed before Prof. Sergeyev. This tool has given a possibility to construct fast sequential and parallel methods significantly outperforming traditional schemes and to obtain convergence conditions of a new type for a huge class of global optimization algorithms that were successfully used for solving a number of applied problems arising in control theory, numerical analysis, electrical and electronic engineering.

Methods developed by Prof. Sergeyev are original and very interesting from the point of view of mathematical tools involved in the process of optimization: an efficient usage of fractal Peano-Hilbert space-filling curves for reduction of dimension of the problem; efficient diagonal partitions that he has developed; reduction of problems with partially defined multiextremal non-differentiable constraints to unconstrained problems without introduction additional parameters or variables.

For his outstanding results in continuous optimization Yaroslav D. Sergeyev is an excellent choice for EUROPT Fellow 2016.

Report of EUROPT Workshop 2016

<http://www.europt2016.ia.pw.edu.pl/>

The 14th EUROPT 2016 Workshop on Advances in Continuous Optimization was hosted by the Warsaw University of Technology, Warsaw, Poland. The workshop started with a Welcome Reception of the participants on June 30 - on the eve of the two working days - July 1 and July 2.

This Workshop continued the line of previous EUROPT workshops: first held in 2000 in Budapest, followed by the workshops in Rotterdam 2001, Istanbul 2003, Rhodes 2004, Reykjavik 2006, Prague 2007, Remagen 2009, Aveiro 2010, Ballarat 2011, Siauliai 2012, Florence 2013, Perpignan 2014 and Edinburgh 2015.

The 14th EUROPT 2016 Workshop was a satellite meeting preceding the 28th European Conference on Operational Research, held July 3-6, 2016 in Poznań, Poland (<http://www.euro2016.poznan.pl/>).

The preparations of the 14th EUROPT 2016 Workshop were distributed between a Program Committee and the Local Organizing Committee composed by the staff members of the Institute of Control and Computation Engineering. Their compositions are presented below:

Programme Committee

Włodzimierz Ogryczak (Warsaw University of Technology, chair), Regina Burachik (University of South Australia), Immanuel Bomze (University of Vienna), Joseph Frédéric Bonnans (Inria-Saclay and CMAP, Ecole Polytechnique), Sonia Cafieri (ENAC, University of Toulouse), Yu-hong Dai (LSEC, Institute of Computational Mathematics, Chinese Academy of Sciences), Roger Fletcher (University of Dundee), Jacek Gondzio (Edinburgh University), Andreas Grothey (University of Edinburgh), Dmitri Kvasov (University of Calabria), Irena Lasiecka (Memphis University, USA and Systems Research Institute, PAS), Juan Enrique Martinez-Legaz (University of Barcelona), Panos Pardalos (University of Florida), Roman Slowiński (Poznan University of Technology), Oliver Stein (Karlsruhe Institute of Technology), Tatiana Tchemisova (University of Aveiro), Tamas Terlaky (Lehigh University), Gerhard-Wilhelm Weber (Middle East Technical University), Julius Zilinskas (Vilnius University).

Local Organizing Committee

Andrzej Stachurski (chair), Janusz Granat, Andrzej Karbowski, Tomasz Sliwiński, Alicja Trojanowska.

Deliberations of the 14th EUROPT 2016 Workshop held in the building of the Faculty of Electronics and Information Technology of the Warsaw University of Technology. Opening Ceremony and the plenary lectures took place in one of the large halls of that building.

Attendance

The final number of the Workshop participants was 92: from Italy (16), Poland (13), Germany (9), France (7), Spain (6), Turkey (6), UK (5), Austria (3), Brazil (3), Japan (3), Belarus (2), Czech Republic (2), HongKong (China) (2), Israel (2), USA (2) and one each from Belgium, Chile, Ecuador, Iran, Lithuania, Mexico, Netherlands, New Zealand, Portugal, Switzerland and Ukraine.

Scientific Program

The scientific program consisted of 20 contributed sessions, comprising 86 talks (20 minutes for one talk) and 4 plenary lectures presented by:

- Andreas Griewank, Dean of the Faculty of Mathematical Sciences and Computer Engineering at Yachay Tech Ibarra, *Optimality and convexity conditions for piecewise smooth objective functions*
- Jiri Outrata, Research Fellow, Institute of Information Theory and Automation, Czech Academy of Sciences, *On stability and sensitivity of constraint and variational systems*
- Anatoly Zhigljavsky, Professor, Chair in Statistics at Cardiff University, Director of the Centre for Optimisation and Its Applications at Cardiff University, *Stochastic global optimization: promises and limitations*
- EUROPT Fellow 2016, Yaroslav Sergeyev, Professor at the University of Calabria, Italy, *Lipschitz global optimization.*

Social Program

In order to ensure some respite the XIVth EUROPT 2016 Workshop incorporated also the following social events:

- Welcome Reception in the Central Canteen of the Warsaw University of Technology
- Lunches for all participants on Friday and Saturday, 1 and 2 July in the Central Canteen of WUT
- Bus tour, guided visit to the Warsaw Royal Castle and Old Town
- Conference Dinner in the Restaurant “Wiesz, co Zjesz”, Marszałkowska Str.45/49, Warsaw.

Special issue of Mathematical Methods of Operations Research

Selected papers presented at EUROPT 2016 will be considered for peer-reviewed publication in a special issue of Mathematical Methods of Operations Research entitled Special issue on advances in continuous optimization on the occasion of EUROPT 2016. Papers are required no later than 1 November 2016.

Sponsors

Thanks to the support of EURO and the sponsors of the Workshop, the Organizing Committee managed to ensure a financial help to a few participants from neighbouring weak currency countries in the form of fee waiving and free accomodation.

- IAIIS - Insitute of Control and Computation Engineering
- FEIT - Faculty of Electronis and Information Technology
- WUT - Warsaw University of Technology, Warsaw, Poland
- EWG EUROPT - The Continuous Optimization Working Group of EURO
- EURO - Association of European Operational Research Societies
- NASK - Naukowa i Akademicka Sieć Komputerowa, Warsaw, Poland



Next EUROPT Workshop

The 15th EUROPT 2017 Workshop will be held in Montreal, Canada, on 6-8 July 2017 and will be organised by Miguel Anjos (Polytechnique Montréal).

On behalf of the Organizing Committee

Andrzej Stachurski

Warsaw University of Technology



Opening Ceremony: prof. Oliver Stein, prof. Krzysztof Zaremba, prof. Julius Zilinskas, prof. Włodzimierz Ogryczak, prof. Cezary Zieliński and chair of the Organizing Committee dr Andrzej Stachurski (with the microphone)

Roger Fletcher



Roger Fletcher

It is with great sadness that we report the death of Roger Fletcher, an Emeritus Professor and Senior Research Fellow at the University of Dundee. Roger was in the first rank of numerical analysts, working mainly in linear algebra and optimization. He is particularly known for his wide ranging work in optimization, where he made many highly original and fundamentally important contributions, and numerous methods bear his name. In addition to the development of methods, Roger also produced several computer programs based on his work which are widely used today. He collaborated widely, and supervised many students and research fellows who went on to make their own major contributions.

The quality of his work was recognised by various honours. He was awarded the Dantzig Prize in 1997 and the Lagrange Prize in 2006, both by the Mathematical Optimization Society; he was elected a Fellow of the Royal Society of Edinburgh in 1988, a Fellow of the Royal Society of London in 2003, a SIAM Fellow in 2009 and was awarded a Royal Medal by the Royal Society of Edinburgh in 2011.

Away from Mathematics, he was an enthusiastic swimmer, an accomplished bridge player, and enjoyed walking in the Scottish hills. It was during a walk from his holiday accommodation near Dornie on the west coast of Scotland that Roger went missing, but the details of what caused his death are still unclear.

Roger was a good friend to many, and splendid company at all times. He leaves a wife Mary, and two daughters Jane and Sarah. He will be greatly missed.

David Griffiths and Alistair Watson
University of Dundee

Contacts

EUROPT: <http://europt.iam.metu.edu.tr/>

People wishing to send a message to the EUROPT mailing list should contact our web administrator Semih Kuter semihkuter@yahoo.com. The message will then be distributed upon approval by the EUROPT Managing Board.

For specific questions, the members of the Managing Board can be contacted.

Editor's notes

Dear members of EUROPT, dear readers,

The new EUROPT Managing Board has recently been elected. We are pleased to announce in this issue of the Newsletter the new Managing Board. We thank you for taking part in the elections.

We are also glad to provide a report on the last EUROPT Workshop, that took place in Warsaw, and during which we had the pleasure to award Yaroslav Sergeyev EUROPT Fellow 2016. A laudatio is included in this Newsletter.

As always, I would like to encourage the readers to contribute to the Newsletter sharing any valuable information for our community.

The Newsletter Editor

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