



## Newsletter 41 of EUROPT

EUROPT - The Continuous Optimization Working Group of EURO

<https://www.euro-online.org/websites/continuous-optimization/>

*October 2018*

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# Words from the Chair

Dear Friends,

Welcome to the 41<sup>st</sup> EUROPT Newsletter. The last summer brought us some important changes. A new EUROPT Managing Board has been elected and it is made up of 3 new people and 4 members from the previous board, respectively Paula Alexandra Amaral (Universidade Nova de Lisboa), Laura Palagi (Sapienza Università di Roma), Christiane Tammer (Martin-Luther-Universität Halle-Wittenberg) and Sonia Cafieri (Ecole Nationale de l'Aviation Civile, Université de Toulouse), Andreas Grothey (The University of Edinburgh), Dmitri Kvasov (Università della Calabria), Giancarlo Bigi (Università di Pisa). On behalf of the whole board I thank you all for your support and we are looking forward to providing a valuable service to our community. Please, feel free to email us your suggestions and opinions anytime, they will be really welcome.

My most sincere gratitude goes to the friends who left the board, namely Fabio Schoen, Edmondo Minisci and the 2014-18 chair Julius Zilinskas for their great service in the last years. I know they will keep contributing to the succes of EUROPT.

Our last annual EUROPT workshop took place in Almería. The report of the workshop may be found in this issue of the newsletter as well as the Laudatio for Marco Locatelli who was awarded EUROPT Fellow 2018 during the workshop.

The 2019 EURO Conference will be held in Dublin, Ireland, on 23-26 June. Following the tradition of our annual workshop to be held close to the EURO conference, the next EUROPT Workshop will be in Glasgow, UK, on 28-29 June. Many daily flights connect Dublin to Glasgow so that those wishing to attend both events can make it. The workshop will be hosted by the University of Strathclyde and organised by The Intelligent Computational Engineering Laboratory led by Edmondo Minisci, who is chairing the Programme Committee. An announcement for the workshop is included in this issue of the newsletter as well.

The new EUROPT website <https://www.euro-online.org/websites/continuous-optimization/> was released about one year ago. We still need to rebuild a reliable memberlist through the website. When it is done, communications will be easily handled by exploiting the features of the website. Please, take a few minutes to register on the website. Thank you all.

Giancarlo Bigi, EUROPT Chair

Università di Pisa, Italy  
[giancarlo.bigi@unipi.it](mailto:giancarlo.bigi@unipi.it)

# Elections of the EUROPT Managing Board

Dear EUROPT Members,

A new EUROPT Managing Board has been elected. Thank you very much for taking part in the election.

The results of the election are the following EUROPT Managing Board:

- **Paula Alexandra Amaral**, Universidade Nova de Lisboa
- **Giancarlo Bigi**, Università di Pisa
- **Sonia Cafieri**, ENAC, Université de Toulouse
- **Andreas Grothey**, University of Edinburgh
- **Dmitri Kvasov**, Università della Calabria
- **Laura Palagi**, Sapienza Università di Roma
- **Christiane Tammer**, Martin-Luther-Universität Halle-Wittenberg

The term of this board will be July 2018 - June 2020.

We will try our best to continue the success of the EUROPT working group!

# Laudatio for Marco Locatelli, EUROPT fellow 2018



Marco Locatelli

University of Parma, Italy

EUROPT fellow 2018

M. Locatelli is is Full Professor of Operations Research at the University of Parma (Italy) where he is also the Scientific Coordinator of the PhD program in Computers Science Engineering.

M. Locatelli is an outstanding researcher in continuous optimization. He authored or co-authored more than 90 papers. Although he has numerous international collaborations, many of his papers are single authored. His research activities deals with a wide range of topics such as domain reduction strategies in branch & bound techniques, local search heuristics for global optimization, computation of convex envelopes, quadratic optimization; and semidefinite optimization. Beyond theoretical and algorithmic aspects, his research activities include applications in fields such as distance geometry, molecular conformation problems, optimal disk and sphere packing and optimization of space trajectories. In his research activities of high impact, M. Locatelli bridges the gap between theory and practical applicability in algorithmic aspects. Moreover, he as well establishes valuable connections between discrete structures and the continuous optimization domain. He is also the co-author of a recent book on Global Optimization in the renowned SIAM-MOS series, which provides a very valuable source for researchers interested in this area.

The administrative contributions of M. Locatelli to the continuous optimization community include serving as Associate Editor of the Journal of Global Optimization and of Computational Optimization and Applications. He also served on the scientific committees of several international conferences. In particular, he was a member of the organizing and programme committees of EUROPT2013, where he delivered also one of the invited lectures.

For his outstanding research and administrative contributions M. Locatelli is an excellent choice for EUROPT Fellow 2018.

# EUROPT Workshops

## Report on EUROPT 2018

**Almería, Spain, July 12-13, 2018**

<http://www2.ual.es/EurOPT18/>

The 16<sup>th</sup> EUROPT 2018 Workshop on Advances in Continuous Optimization was hosted by the University of Almería, Almería, Spain. The workshop started with a Welcome Reception of the participants on July 11 - on the eve of the two working days - July 12 and July 13. 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, Edinburgh 2015, Warsaw 2016 and Montréal 2017. The 16<sup>th</sup> EUROPT 2018 Workshop was a satellite meeting preceding the 29<sup>th</sup> European Conference on Operational Research, held July 8-11, 2018 in Valencia, Spain (<http://euro2018valencia.com/>).

The preparations of the 16<sup>th</sup> EUROPT 2018 Workshop were distributed between a Program Committee and the Local Organizing Committee composed by the staff members of the research group TIC-146 Supercomputing - Algorithms, mainly from University of Almería. Their compositions are presented below:

### Programme Committee

Miguel Anjos (Polytechnique Montréal, Canada), Giancarlo Bigi (University of Pisa, Italy), Immanuel Bomze (University of Vienna, Austria), Sonia Cafieri (ENAC, France), Emilio Carrizosa (University of Seville, Spain) chair, Leocadio G. Casado (University of Almería, Spain), Claudia d'Ambrosio (LIX, France), Gabriele Eichfelder (TU Ilmenau, Germany), José Fernández Hernández (University of Murcia, Spain), Jacek Gondzio (University of Edinburgh, UK), Andreas Grothey (University of Edinburgh, UK), Eligius Hendrix (Universidad de Málaga, Spain), Tibor Illés (Budapest University of Technology and Economics, Hungary), Dmitri Kvasov (University of Calabria, Italy), Sébastien Le Digabel (Polytechnique Montréal, Canada), Marco López (University of Alicante, Spain), Kaisa Miettinen (University of Jyväskylä, Finland), Edmondo Minisci (Strathclyde University, UK), Ruth Misener (Imperial College London, UK), Pilar M. Ortigosa (University of Almería, Spain), Laura Palagi (U. Roma La Sapienza, Italy), János D. Pintér (Lehigh University, USA), Fabio Schoen (University of Florence, Italy), Oliver Stein (Karlsruhe Institute of Technology, Germany), Tatiana Tchemisova (U. Aveiro, Portugal), Tamás Terlaky (Lehigh University, USA), Boglárka G.-Tóth (University of Szeged, Hungary), Gerhard-Wilhelm Weber (Poznan University of Technology, Poland), Julius Zilinskas (Vilnius University, Lithuania).

### Organizing Committee

Pilar Martínez Ortigosa (University of Almería) Chair, Leocadio González Casado (University of Almería) Chair, Ester Martín Garzón (University of Almería), Vicente González Ruíz

(University of Almería), José Antonio Martínez García (University of Almería), Juan Francisco Sanjuan Estrada (University of Almería), Juana López Redondo (University of Almería), Eligius M.T. Hendrix (University of Málaga), Inmaculada García Fernández (University of Málaga), Gloria Ortega López (University of Málaga), Cristobal Medina López (University of Almería), José Manuel García, Salmerón (University of Almería), Nicolas Calvo Cruz (University of Almería), Miriam Ruiz Ferrández (University of Almería), Savins Puertas Martín (University of Almería), Juan José Moreno Riado (University of Almería), Francisco José Orts Gómez (University of Almería).



### **Geographical Distribution of the participants**

Spain: 30, Italy: 20, Germany: 14, Canada: 9, Portugal: 7, France: 6, England: 6, Hungary: 4, Austria: 4, Lituania: 3, Poland: 3, EEUU: 3, Turkey: 2, Argelia: 2, Brasil: 2, Netherlands: 1, Greece: 1, Bulgaria: 1, Chile : 1, Brasil: 1 and South Korea: 1.  
Total: 121 participants.

### **The 2018 EUROPT Fellow Lecture**

The title of EUROPT Fellow is awarded each year to an outstanding researcher in the field. The award is made by the EUROPT Managing Board based on the nominations received from the members of EUROPT.

The 2017 awardee of EUROPT Fellowship was announced during the Workshop. It was Professor Marco Locatelli, from Università degli Studi di Parma, Parma, Italy, who received this honor. Professor Locatelli gave the EUROPT Fellow Lecture as plenary talk.





Full list of the EUROPT Fellows is at: <https://www.euro-online.org/websites/continuous-optimization/europt-fellows/>

## Scientific Program

The scientific program consisted of 30 parallel sessions comprising 96 talks (20-25 minutes for one talk) and four plenary lectures presented by:

- Coralia Cartis, Associate Professor in Numerical Optimization, Mathematical Institute of University of Oxford. *Optimization with expensive and uncertain data challenges and improvements.*
- Angelika Wiegele, Associate Professor at the Mathematics Department at Alpen-Adria-Universität Klagenfurt, Austria. *Algorithmic Approaches for Semidefinite Programming Applied to Combinatorial Optimization.*
- Frédéric Messine, Full Professor, LAPLACE-ENSEEIH-INT, University of Toulouse, France. *Mathematical Optimization for Innovative Electromagnetical Designs.*
- EUROPT Fellow 2018, Marco Locatelli. Full professor by the Dipartimento di Ingegneria e Architettura, Università di Parma, Italy. *Trajectory and speed planning by optimization.*





## Social Program

In order to ensure some respite the 16<sup>th</sup> EUROPT 2018 Workshop incorporated also the following social events:

- Welcome Reception in the “LaMarca” restaurant.
- Lunches for all participants on Thursday and Friday, 12 and 13 July in the Central Canteen of University of Almería.
- Conference Dinner in the Restaurant ”Club de Mar“.
- On foot tour, guided visit the Almería’s downtown.
- Flamenco Dancing Show Place: Peña el Taranto, and end of workshop dinner.



More photos at <http://www2.ual.es/EurOPT18/photo-gallery/> password ”workshop“.

## **Special issue of Journal of Global Optimization**

Selected papers presented at EUROPT 2018 will be considered for peer-reviewed publication in a special issue of JOGO entitled Special issue on Advances in Continuous Optimization on the occasion of EUROPT 2018. Papers are required no later than 15th November 2018.

## **Sponsors**

The scientific and social programs of the workshop would not have been possible without the generous support of the sponsors of the workshop, and we extend our thanks and appreciation to them:

- EUROPT working group.
- University of Almería.
- Department of Informatics, University of Almería.
- Cajamar.
- Diputación de Almería.
- Ceia3.
- Junta de Andalucía.

The organizers of EUROPT'18

Pilar M. Ortigosa, Emilio Carrizosa and Leocadio G. Casado

# 17<sup>th</sup> EUROPT Workshop on Advances in Continuous Optimization

## 28-29 June 2019, Glasgow, UK

<http://icelab.uk/europt-2019/>



Following the 30<sup>th</sup> European Conference on Operational Research (EURO 2018, Dublin, Ireland, 23<sup>rd</sup>-26<sup>th</sup> June), the 17<sup>th</sup> EUROPT Workshop on Advances in Continuous Optimization (EUROPT 2019) will take place in Glasgow, UK.

**Please add these dates to your agenda!**

### Call for Contributions

The EUROPT Workshop brings together researchers from Europe and around the globe for stimulating discussions on the latest developments in continuous optimization.

Colleagues are invited to contribute especially (but not only) on one or more of the following topics:

- Linear and nonlinear optimization
- Large-scale optimization
- Multi- and many-objective optimization
- Mixed integer nonlinear optimization
- Optimization under uncertainty and applications
- Derivative-free optimization
- Semi-infinite optimization
- Global optimization
- Stochastic optimization
- Complementarity and variational problems
- Optimal control and applications
- Conic and semidefinite optimization
- Optimization in industry, business and finance
- Complexity and efficiency of optimization algorithms
- Analysis and engineering of optimization algorithms
- Convex and non-smooth optimization
- Data driven optimization
- Nature inspired methods and algorithms
- Multilevel optimization
- Optimization for learning and data analysis
- Huge-scale optimization

## Program Committee

- **Edmondo Minisci**, University of Strathclyde, UK (Chair)
- **Paula Amaral**, Universidade Nova de Lisboa, Portugal (EUROPT MB)
- **Miguel Anjos**, Polytechnique Montréal, Canada (EUROPT Fellow)
- **Adil Bagirov**, Federation University Australia, Australia (EUROPT Fellow)
- **Giancarlo Bigi**, Università di Pisa, Italy (EUROPT chair)
- **Immanuel Bomze**, University of Vienna, Austria (EUROPT Fellow)
- **Sonia Cafieri**, ENAC, Université de Toulouse, France (EUROPT MB)
- **Emilio Carrizosa**, Universidad de Sevilla, Spain
- **Coralia Cartis**, University of Oxford, UK
- **Gabrielle Eichfelder**, Technische Universität Ilmenau, Germany
- **Manlio Gaudio**, Università della Calabria, Italy
- **Andreas Grothey**, University of Edinburgh, UK (EUROPT MB)
- **Julian Hall**, University of Edinburgh, UK
- **Tibor Illes**, Budapest University of Technology and Economics, Hungary (EUROPT Hon Chair)
- **Joaquim Judice**, Universidade de Coimbra, Portugal (EUROPT Fellow)
- **Michal Kocvara**, University of Birmingham, UK
- **Dmitri Kvasov**, Università della Calabria, Italy (EUROPT MB)
- **Marco Locatelli**, Università di Parma, Italy (EUROPT Fellow)
- **Marco Antonio Lopez-Cerdá**, Universidad de Alicante, Spain (EUROPT Past Chair)
- **Juan Enrique Martínez-Legaz**, Universitat de Barcelona, Spain (EUROPT Fellow)
- **Kaisa Miettinen**, University of Jyväskylä, Finland (EUROPT Past Chair)
- **Ruth Misener**, Imperial College, UK
- **Yurii Nesterov**, Université Catholique de Louvain, Belgium (EUROPT Fellow)
- **Laura Palagi**, Università di Roma "La Sapienza", Italy (EUROPT MB)
- **Panos M. Pardalos**, University of Florida, USA (EUROPT Fellow)
- **Veronica Piccialli**, Università di Roma "Tor Vergata", Italy
- **János Pintér**, Lehigh University, USA (EUROPT Past Chair)
- **Annalisa Riccardi**, University of Strathclyde, UK
- **Francesco Rinaldi**, Università di Padova, Italy
- **Fabio Schoen**, Università di Firenze, Italy
- **Yaroslav D. Sergeyev**, Università della Calabria, Italy (EUROPT Fellow)
- **Oliver Stein**, Karlsruher Institut für Technologie, Germany
- **Christiane Tammer**, Martin-Luther-Universität Halle-Wittenberg, Germany (EUROPT MB)
- **Tatiana Tchemisova**, Universidade de Aveiro, Portugal
- **Tamas Terlaky**, Lehigh University, USA (EUROPT Hon Chair)
- **Massimiliano Vasile**, University of Strathclyde, UK
- **Angelika Wiegele**, Alpen-Adria-Universität Klagenfurt, Austria
- **Gerhard Wilhelm Weber**, Poznan University of Technology, Poland (EUROPT Hon Chair)
- **Anatoly Zhigljavsky**, Cardiff University, UK
- **Julius Zilinskas**, Vilniaus Universitetas, Lithuania (EUROPT Past Chair)

## Organizing Committee

- **Annalisa Riccardi**, University of Strathclyde, UK (Chair)
- **Christie A. Maddock**, University of Strathclyde, UK
- **Peter McGinty**, University of Strathclyde, UK
- **Jenny McLeod**, University of Strathclyde, UK
- **Edmondo Minisci**, University of Strathclyde, UK
- **Massimiliano Vatile**, University of Strathclyde, UK

The organisation is supported by the **Glasgow Convention Bureau**, named the Best UK Convention Bureau for 12 years running (M&IT awards)

## Venue

**Glasgow** is a cultural City, named European City of Culture and UNESCO City of Music, and voted Top 20 "Best of the World" for 2016 by National Geographic Traveller, Top 10 Most Excellent Cities 2018 on TripAdvisor, as well as one of the top 10 Best Places to visit in 2018 by the New York Times.

Glasgow is connected to the rest of the World through 3 international airports: Glasgow International (20 minutes from the City Centre by bus), Edinburgh (55 minutes from the City Centre of Glasgow by direct bus), and Prestwick (45 minutes from City Centre by direct train)

## Call for Sessions

Researchers interested in organizing a 3-talk session are invited to contact the Program Chair at [edmondo.minisci@strath.ac.uk](mailto:edmondo.minisci@strath.ac.uk), before the **15<sup>th</sup> of December 2018**.

## Important Dates

- Abstract Submission: February 1st - March 4th 2019
- Abstract Acceptance: March 18th 2019
- Early bird registration deadline: April 15th 2019
- Author registration: May 20th 2019

## More information

More info and updates will be disseminated via twitter, ([#EU-ROPT2019](https://twitter.com/icelab_uk)), and via our web site (<http://icelab.uk/europt-2019/>)



## Forthcoming Events

### NUMTA 2019 – The 3rd International Conference and Summer School “Numerical Computations: Theory and Algorithms”

June 15–21, 2019

TH Le Castella Village  
Le Castella – Isola Capo Rizzuto, Crotone, Italy

<http://si.dimes.unical.it/~yaro/numta2019>



We are happy to **announce** that NUMTA2019 - the 3rd International Conference and Summer School “Numerical Computations: Theory and Algorithms” will be held in Italy in the All Inclusive “TH Le Castella Village” resort close to Crotone – the city of Pythagoras, from 15th to 21st June 2019. This edition of NUMTA will be dedicated to the 80th birthday of Professor Roman G. Strongin <http://eng.unn.ru/about/organisation/rectors-office/roman-strongin>.

**The goal of NUMTA2019** is to create a multidisciplinary round table for an open discussion on numerical modeling by using traditional and emerging computational paradigms. The Conference (including also special streams and sessions) will discuss all aspects of numerical computations and modeling from foundations and philosophy of mathematics to advanced numerical techniques. New technological challenges and fundamental ideas from theoretical computer science, linguistic, logic, set theory, and philosophy of mathematics will meet requirements and new fresh applications from physics, chemistry, biology, and economy.

**Continuous optimization and machine learning** are among the main topics of the Conference (see <https://easychair.org/cfp/numta2019> for the NUMTA2019 Call-for-Papers).



**Proceedings** will be published as a special volume of the world-renowned Springer “**Lecture Notes in Computer Science**” and will contain regularly peer-reviewed short and full papers.

**Special issues** of the international journals **Applied Mathematics and Computation** (Impact Factor 2017 = 2.300) produced by Elsevier and **Soft Computing** (Impact Factor 2017 = 2.367) produced by Springer will be dedicated to the Conference. The Organizers consider the possibility to prepare special issues of some other peer-reviewed international journals.

**Information:** Please consult the Conference web-site <http://si.dimes.unical.it/~yaro/numta2019> for more details and contact the Organizers at [numta2016@dimes.unical.it](mailto:numta2016@dimes.unical.it) for information.

We look forward to welcoming you next year in Italy!

Prof. Yaroslav D. Sergeyev

# Reports

## Report on EURO 2018 Beyond Fourth Decade of EURO Conferences on OR

Valencia, Spain, July 8-11, 2018

<http://euro2018valencia.com/>

EURO 2018, The 29<sup>th</sup> European Conference for Operational Research in the series of EURO conferences, the largest and most important conference for Operational Research and Management Science (OR/MS) in Europe, with more than 40 years of history since its first edition in Brussels in 1975, was held and so much enjoyed in Valencia, Spain, last July 8-11, 2018. Please find so much valuable information about EURO 2018 at its homepage <http://euro2018valencia.com/>. Up-front, we would like to say that those sunny days of EURO 2018 will forever be remembered as days of scientific excellence, of an amazing organizational care, of the beauty of Spain and the Mediterranean Sea, and of a great friendship.

The success of this EURO conference was made possible because of the perseverance, great dedication and hard-work exerted by the Organizing Committee (<http://euro2018valencia.com/organization-committee/>) headed by its co-chairs from the two hosting universities- Prof. Dr. Ramon Alvarez-Valdes from Universitat de Valencia, and Prof. Dr. Ruben Ruiz from Universitat Politecnica de Valencia, and the concerted effort, immense devotion and care of the members of the Program Committee (<http://euro2018valencia.com/program-committee/>) chaired by Prof. Dr. Greet Vanden Berghe from KU Leuven, Belgium.

The participants were warmly welcomed by Presidents and Chairs in a very solemn Opening Session, and a following Welcome Reception with a local and traditional fireworks display took place, too, in the afternoon and evening of July 8. Particular emphasis should be given to two details of high recognition during the Opening, namely, the EURO Gold Medal awarded to Prof. Dr. Silvano Martello (University of Bologna, Italy) and the EURO Distinguished Service Medal Award handed to Prof. Dr. Jan Weglarz (Poznan University of Technology, Poland).

The four-day conference established a very hospitable frame where participants had the time to meet old and new friends and research intellectuals, and to choose among 15 invited (keynote, tutorial or plenary) speeches and 596 sessions with usually four paper presentations per session. EURO 2018 was attended by almost 2500 registered participants from 77 countries around the world, with more than 2000 presentations. Being a big conference, two venues were prepared excellently - Universitat de Valencia (UV) and Universitat Politecnica de Valencia (UPV), together with the spectacular Valencia Convention Centre, a futuristic world of modern architecture and hybrid, amphibious life between land and sea.

The conference was highlighted by the following **Keynote, Tutorial and Plenary Lectures** of OR research enthusiasts from all over the world:

### Day 1 (Monday) - the Keynote Lectures

- *Six Decades of Interior Point Methods: From Periphery to Glory* by Prof. Dr. Tamás Terlaky (Lehigh University, USA);
- *Optimization and Music Data Science* by Prof. Dr. Elaine Chew (Queen Mary University of London, UK);
- *Systems Modeling Impacting Policy: The Role Of Group Model Building in Cambodia* by Prof. Dr. David Matchar (Duke-NUS, Singapore);
- *Quantitative Models Embedded in Decision-support Tools for Healthcare Applications* by Prof. Dr. Pinar Keskinocak (Georgia Tech, USA);
- and the EURO Plenary Lecture *The Discrete Charm of Districting* by Prof. Dr. Roger Z. Rios-Mercado (Universidad Autonoma de Nuevo León, Mexico);

### Day 2 (Tuesday) - the Keynote Lectures

- *Community Structure in Complex Networks* by Prof. Dr. Santo Fortunato (Indiana University, USA);
- *Putting Operations Research to Work* by Prof. Dr. Iris F.A. Vis (University of Groningen, the Netherlands);
- *MINLP and the Cost of Interpretability in Data Science* by Prof. Dr. Dolores Romero Morales (Copenhagen Business School, Denmark);
- *Integrated Optimization in Public Transportation: Does it Help?* by Prof. Dr. Anita Schöbel (University Göttingen, Germany),
- and the IFORS Distinguished Lecture *Air Transportation Optimization* by Prof. Dr. Cynthia Barnhart (MIT, USA);

### Day 3 (Wednesday) - the Keynote Lectures

- *Teaching experiments are condemned to be successful* by Prof. Dr. Maria Antonia Caravilla (University of Porto, Portugal);
- *Online Optimization for Dynamic Matching Markets* by Prof. Dr. Patrick Jaillet (MIT, USA);
- *The Hazards of Trading Volatility* by Prof. Dr. Carol Alexander (University of Sussex, UK);
- the IFORS Tutorial Lecture *Solving Hard Shortest Path Problems with the Pulse Framework* by Prof. Dr. Andrés Medaglia (Universidad de los Andes, Colombia);
- and the EURO Plenary Lecture *Theory can sometimes be useful* by Prof. Dr. Gerhard Woeginger (RWTH Aachen University, Germany).

Please find video records of the presentations under <http://euro2018valencia.com/plenaries-and-key-notes/>.

The conference Program was structured by Main Areas (listed at [http://euro2018valencia.com/streams\\_and\\_areas/](http://euro2018valencia.com/streams_and_areas/)), which consisted of valuable Streams, themselves composed of Sessions and, herewith, the Presentations. What is more it had several precious "Satellite Events" in further beautiful Spanish cities ([http://euro2018valencia.com/satellite\\_events/](http://euro2018valencia.com/satellite_events/)), and it endorsed a number of Special Issues in excellent journals offered to participants and friends (<http://euro2018valencia.com/special-issues/>).

As it is not possible here to name here the vast diversity and splendid prosperity of the entire program, subsequently we recall just a few main impressions by us - while we highly value all the many precious contributions!

In fact, one of the most important and well-attended among the sessions during the conference was that on “Making an Impact” which gave opportunities to practitioners to explore their challenges and share solutions, try out new techniques, see case studies displaying important applications, exchange ideas and expertise with people in related fields, meet leading academicians and discover what each one can do for each other, and build new network among likeminded professionals. The session was organized by EURO Working Group on Practice of OR (<https://www.euro-online.org/websites/or-in-practice/register/>), the network for OR practitioners in industry, consultancy, government and beyond.

As a novelty in our EURO conferences, EURO 2018 cherished the sincere and important Session “Women in Science” (cf. its video under <http://euro2018valencia.com/photos-videos/>).

Eventually, ROADEF/EURO Challenge 2018 and, due to EURO Working Group on Ethics and OR, the EthOR 2018 Award project were conducted, and there was so much more which you can find when browsing through the program <https://www.euro-online.org/conf/admin/tmp/program-euro29.pdf>.

Other streams organized included sessions on, e.g., Scheduling Practice, Facility Location, Dynamic and Stochastic Scheduling, Results on Benders’ Decomposition, Stochastic Models and Queueing, Analytic Hierarchy Process, Multi-Objective Combinatorial Optimization, Continuous Optimization, The Role of Mathematical Optimization in Data Science, Decision Aiding Methods, Quality Management, Supply Chain Analysis, OR in Neuroscience, Machine Learning, Quality Management, Data Envelopment Analysis, Risk Management, Ethics and Societal Complexity, Heuristics, Vehicle Routing Problems, OR for Developing Countries, OR in Forestry, Health Care, Water Management, Systems and Sports, Energy and Education, Renewable Energy, Sustainable Operations, Moments in the History of OR, and much more, offered to interested participants to choose from.

To culminate the conference, the solemn Closing Session was held at the Opera House (Valencia Convention Centre). It was high-lighted through a further EURO Awards’ ceremony, and information about EURO 2019 (Dublin, Ireland; <https://www.euro2019dublin.com/>) and IFORS 2020 (Seoul, Korea) was given with presentations disseminated by chairs and representatives. In addition, the members of the committees of EURO 2018 were greatly acknowledged. Our conference was organized by EURO, the Spanish Statistics and Operations Research Society (SEIO), UV, UPV and ADEIT - Fundacio Universitat Empresa, and their excellent teams.

So much we learned, so much sun, history, marvelous paella we enjoyed... with so many wonderful humans... EURO 2018: an investment into the future of OR, and its service in building up our world of tomorrow in togetherness and friendliness!



Conference Chairs and Presidents at the Opening Ceremony

Milagros Baldemor  
[milagros\\_baldemor@yahoo.com.ph](mailto:milagros_baldemor@yahoo.com.ph)

Gerhard-Wilhelm Weber  
[gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

## Report on WGSCO 2018

# Promoting a broad exchange on new developments in Theory of Graph Spectra, Combinatorics and Optimization

Aveiro, Portugal, January 25-27, 2018

<http://wgsc2018.web.ua.pt/>

The Workshop on Graph Spectra, Combinatorics and Optimization – WGSCO2018 (<http://wgsc2018.web.ua.pt/>) took place during January 25-27, 2018, in the University of Aveiro (<https://www.ua.pt/>), in the city of Aveiro, Portugal, a city often known as the Portuguese Venice because of its system of canals with typical boats, called moliceiros.

The event was organized on the occasion of the 65th birthday of Prof. Dr. Domingos Cardoso, professor at the Department of Mathematics in the University of Aveiro, Portugal, director of the Doctoral Programme in Mathematics, Member of the Scientific Council of the University of Aveiro, and responsible for the Research Group "Optimization, Graph Theory and Combinatorics" of the Centre of Research and Development in Mathematics and Application (CIDMA). Professor Cardoso was nominated in 2015 "Excellent Reviewer" of Discrete Mathematics, an exceptional statute awarded by Elsevier to reviewers who are at the top 10 per cent. Professor Cardoso has played a very important role in Operational Research, e.g., as a former President of APDIO - Associação Portuguesa de Investigação Operacional ( <https://www.euro-online.org/web/ms/21/Portugal>, <http://www.apdio.pt/>), and by his important services to EWG EUROPT - EURO Working Group on Continuous Optimization ( <https://www.euro-online.org/web/ewg/20/ewg-europt-euro-working-group-on-continuous-optimization>, <https://www.euro-online.org/websites/continuous-optimization/>).

The meeting was held with the support of the Mathematics Department of the University of Aveiro, as well as reference societies and R&D Units, such as FCT - Fundação para a Ciência e a Tecnologia, CIDMA - Centro de I&D em Matemática e Aplicações, APDIO, EWG EUROPT, CIM - Centro Internacional de Matemática, and ILAS - International Linear Algebra Society.

The Organizing Committee from the Department of Mathematics of the University of Aveiro ( <http://wgsc2018.web.ua.pt/node/8>) joined efforts to prepare an interesting forum. The topics of the WGSCO 2018 included not only Graph Theory, Combinatorics and Optimization, but all related fields: Algebraic Combinatorics, Algebraic Graph Theory, Algorithms and Computing Techniques, Combinatorial Optimization, Communications and Control Theory, Enumerative Combinatorics, Extremal Combinatorics, Graph Theory, Optimization in Graphs, Graph Spectra and applications, Linear Optimization, Networks, Nonlinear Optimization. In fact, the meeting sought to provide a forum to gather researchers and practitioners from different areas and backgrounds, in a friendly environment suitable for discussion and exchange of ideas. The event was full of networking opportunities!

Prof. Dr. Tatiana Tchemisova (University of Aveiro) opened the conference with kind welcome words for all the participants and devoted special words to Professor Domingos Cardoso. Then, the Rector of University of Aveiro, Professor Manuel Assunção, emphasized the impor-



tance of such events. Professor João Santos and Professor Luís Filipe Castro, Director of the Department of Mathematics and Coordinator of the R&D Unit CIDMA, respectively, welcomed all participants and wished them a fruitful meeting.

The meeting was attended by more than 120 participants from 27 countries!

Speakers of international recognition in several areas of research, in particular, in the field of operations research were present and many, many remarkable research works were shared and contributed to the quality of the meeting.

During the three-day event, leading researchers took part as plenary speakers, contributing to the Scientific Program with nine plenary talks:

- Prof. Dr. Nair Abreu, Federal University of Rio de Janeiro, Brasil, gave a talk about "On the various concepts of central vertex sets of a graph";
- Prof. Dr. Vadim Lozin, University of Warwick, UK, presented a talk entitled "From structure to algorithms: breaking the boundaries";
- Prof. Dr. Tamas Terlaky, Lehigh University, USA, talked about "Prison Guards Dilemma: Optimal Inmate Assignment by Multiobjective Mixed Integer Linear Optimization";
- Prof. Dr. Peter Rowlinson, University of Stirling, Scotland, UK, focused on "Eigenvalue Multiplicity in Regular Graphs";
- Prof. Dr. Jerzy Szymanski, University of Adam Mickiewicz, Poland, deliver a talk regarding "Scale-free graphs";
- Prof. Dr. Jorge Orestes, New University of Lisbon, Portugal, talked about "On the scheduling of periodic events";
- Prof. Dr. Willem Haemers, Tilburg University, The Netherlands, presented a talk on "Spectral characterizations of graphs";
- Prof. Dr. Slobodan Simic, Serbian Academy of Science and Arts, Belgrade, Serbia, conveyed about "Salem Graphs"; and
- Prof. Dr. Richard A. Brualdi, University of Wisconsin, USA, gave a talk on "An Introduction to Combinatorial Matrix Theory mod  $k$ ".

In each day of the event, participants could attend different parallel sessions. There were 23 sessions covering many topics, such as graph theory, combinatorics, optimization, network optimization, dynamic systems and control, and related applications from biology, chemistry, engineering and economy.

The first day ended with a welcome reception. The evening of the second day featured the gala dinner in honor of Professor Domingos Cardoso. The third day ended with a lovely visit to the Vista Alegre Museum and Chapel.

WGSCO2018 participants have the opportunity to submit their full papers to two special issues dedicated to the Workshop: Special issue of Discrete Applied Mathematics (DAM) and Special issue of Optimization ( <http://wgsc2018.web.ua.pt/node/56>). Submitted papers will be considered as potential full-paper publications based on the quality and originality of the contribution and subject to peer reviews.

In the Closing Session, Willi kindly invited the participants of WGSCO2018 to our upcoming EURO conferences.

This big and lovely event of WGSCO2018 gave everyone the opportunity to exchange ideas and establish new collaboration with other researchers from different universities and countries. We are looking forward to seeing you soon!

Eloísa Macedo  
Centre for Mechanical Technology and Automation  
Department of Mechanical Engineering  
University of Aveiro, Portugal  
[macedo@ua.pt](mailto:macedo@ua.pt)

Gerhard-Wilhelm Weber  
Faculty of Engineering Management  
Chair of Marketing and Economic Engineering  
Poznan University of Technology, Poland  
[gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

# Report on International Days of Competences for the Future OR giving a hand to Emerging Research and Application

Poznan, Poland, March 12-13, 2018

<http://idcf.put.poznan.pl/>)

On 12 and 13 March 2018, the international event International Days of Competences for the Future (IDCF) was held for the first time (cf. <http://idcf.put.poznan.pl/>)).

The event took place at the Poznan University of Technology Lecture and Conference Center (well-known as it was the venue of prestigious conferences, e.g., EURO 2016) and was organized by Poznan University of Technology (<https://www4.put.poznan.pl/en>) and its Faculty of Management Engineering ( <https://www4.put.poznan.pl/en/faculties/faculty-engineering-management>) with the support of Poznan University of Technology Initiative **Technical Knowledge Accelerator** (please visit <http://www.awt.org.pl/politechnika-poznanska-inicjatorem-rozwoju-w-wielkopolsce/?lang=en>).

The main theme of IDCF was, broadly understood, **management**. Particular emphasis has been placed on **competences for the future**. New technologies are particularly changing the **labor market**. Artificial intelligence (AI), neural networks, machine learning, robotics, IVR (Interactive Voice Response) and NLP (natural language processing) systems are developing rapidly. The changes concern not only the field of computerization and automation, but also other creative industries. The issues related to, among others, knowledge management and skills management were also discussed; skills and competences in the organization, intelligent organization, intelligent factory; quality in the context of competency management and knowledge management; methods of accelerating the acquisition of cross-cutting competences, including: communication skills, teamwork, entrepreneurship and creativity; as well as leadership, and problems of process automation 4.0.

IDCF was attended by representatives of universities and of companies from Europe and around the world, including the University of Economics in Wroclaw (Poland), the Czestochowa University of Technology (Poland), Centria University of Applied Sciences (Finland), University of Maribor (Slovenia), Matej Bel University Banska Bystrica (Slovakia), West Chamber of Commerce and Industry in Gorzów, Wielkopolska (Poland), The Federation of Education in Joki-laaksot - JEDU (Finland), Poltava National Technical Yuri Kondratyuk University (Ukraine), and Ithaca College in Ithaca, NY (USA); the presence of international students from Poznan University of Technology contributed to the international flair of IDCF.

International Days of Competence were supported by [MAHLE Behr Ostrów Wielkopolski Sp. z o.o.](#) and [Schaltbau RAWAG](#). The event was honored by the presence of academic teachers from Poznan University of Technology.

On the **first day** there were workshops for entrepreneurs and representatives of educational institutions involved in the creation of the Wielkopolska Network of Education and Economy. The workshops were conducted in Polish and English. Entrepreneurs who came to the workshop are involved in the project "[Time for professionals BIS - Professional Wielkopolska](#)",

which was launched under the Wielkopolska Regional Operational Program 2014+ and will be implemented at the end of 2022 by the Wielkopolska Regional Government (Department of Education and Science, Office of the Marshal of Wielkopolska Region) and the Poznan University of Technology in cooperation with interested self-governments, employers and schools educating professionally, from the area of the Wielkopolskie voivodship. – ”Workshops are always well received by participants.“ – said PhD. Eng. Magdalena Graczyk-Kucharska, from the Faculty of Engineering Management; ”This form of cooperation and the exchange of experiences and insights is the most fruitful.“ – We meet some of the companies at the next workshops. Representatives of MAHLE Behr Ostrów Wielkopolski Sp. z o.o. and Schaltbau RAWAG participated in many such meetings, and ”This is the best proof for us that the reception of participants is positive.“ - PhD. Eng. Marek Goliński from the Faculty of Engineering Management underlined. ”The relationships we have been building with the Wielkopolska companies have been established by us for many years.“, he added. – ”Work during the workshop always evokes a lot of emotions.“ – PhD. Eng. Maciej Szafrński from Faculty of Engineering Management said - ”Appropriate moderation of the meeting allows you to keep working in certain frameworks established before the meeting.“, he added. It was a novelty to maintain the workshop character in the atmosphere of an international meeting. - ”It was a great opportunity to practice English.“ - says Klaudyna Bogurska-Matys, relationship specialist in the project ”Time for Professionals BIS - Professional Wielkopolska“ - ”Exchange of opinions and presenting problems that turned out to be transnational and common discussion caused a real brainstorming.“ - she added. PhD. Eng. Maciej Szafrński, PhD. Eng. Marek Goliński, PhD. Eng. Malgorzata Spychala and PhD. Eng. Magdalena Graczyk-Kucharska - young scholars from Poznan University of Technology, Faculty of Engineering Management, will prepare a scientific report, summarizing the meeting along its workshops, during which the most important competences of the future manager have been discussed.

The first day ended with an open Plenary Lecture by an American scientist, Prof. Dr. Scott Erickson, a professor of marketing at the School of Business at Ithaca College, Ithaca, NY, USA: *Organizational Learning and Knowledge Management in the Age of Big Data*. Scott Erickson was greeted by Professor PhD. DsC. Joanna Józefowska, Vice-Rector for Science, who in an interesting way brought closer the American scientist to the gathered guests and students. The Vice-Rector cordially greeted and thanked everyone involved in organizing this meeting.

The professor introduced well-known companies in the USA that use the data collected by the company. He showed how the data is collected, which often even the client has no idea and what is later used by large corporations. As he pointed out, the information was still underestimated 20 years ago, and no one thought that following the movements and decisions of the client would be of great importance. Only now, collecting, storing, analyzing and using this data in marketing, as he admits himself, is quite frightening. – ”I was most surprised by the example of a company that can analyze its customers’ movements and shopping behavior so accurately that they guess when a woman is pregnant and adjust the offers she receives on her computer to this information.“ – said Ania, a student of the Faculty of Engineering Management – Even a question has been asked by one student on how to defend against it. Nobody, however, could say that in the room. We guess that you can hardly stop this whole process anymore. In the discussion, recent connections of Big Data and Business Analytics were disclosed, namely, with Neuroscience which is beginning now to emerge in OR (cf. EURO 2018, Valencia, Spain (<http://euro2018valencia.com/>), in terms of program and special issues

endorsed). "We are very happy that Professor Scott Ericson accepted our invitation to IDCf." – PhD. Eng. Magdalena Graczyk-Kucharska from Faculty of Engineering Management said. – "It is always a great event for us, making foreign, very good specialists with whom we cooperate and exchange experiences. We were also happy with the full lecture hall. Students are eager to take part in this type of lectures." – she added.

The professor was impressed by the conference and the associated workshops organized by Poznan University of Technology. The city also liked him. On his map of places to visit, after the Old Market Square, Fara, he wanted to see the "Porta Posnania Gate" – PhD. Eng. Marek Goliński from Faculty of Engineering Management said. – "With Professor Scott Ericson, we met during a scientific conference in Spain." – PhD. Eng. Maciej Szafranski from the Faculty of Engineering Management explained. – "Our meeting in Poznan just sealed one further scientific work, which is great." Scott Erickson has published many books and articles on Big Data and Business Analytics, intellectual capital and knowledge management as well as competitive intelligence. His new book *New Methods in Marketing Research and Analytics*, was recently published by Edward Elgar.

On the **second day**, an international conference was held under the name "The acceleration method of development of transversal competences - results of research and analyses". The event was addressed to scientists, students, representatives of enterprises and institutions related to education and the labor market.

The conference was solemnly opened by Professor PhD. DsC. Tomasz Lodygowski, Rector of Poznan University of Technology, who welcomed all the guests and presented a film promoting the university. Then the following spoke: Professor PhD. DsC. Magdalena Wyrwicka, Dean of the Faculty of Engineering Management, and PhD. Eng. Maciej Szafranski, from the Faculty of Engineering Management. The organizers of the event with a warm word welcomed guests from abroad and from Poland. They thanked all those involved in the organization of this event, persons and institutions that have taken them under the honorary patronage, namely: Marek Woźniak, Marshal of Wielkopolska Region, Jacek Jaśkowiak, President of the City of Poznan, Polish Academy of Sciences represented by Prof. Zenon Wiśniewski, and Media Patron: Editorial Office of Wielkopolska, Radio Poznan and TVP3 Poznan. During the Plenary session, PhD. Eng. Maciej Szafranski presented the Method developed in the project ATC Erasmus+. - "The acceleration method of development of transversal competences in the students - practical training process", Prof. Dr. Gerhard-Wilhelm Weber from Poznan University of Technology, Poland, elaborated the theme "Knowledge Acceleration by Competences and Multivariate Adaptive Regression Splines". This presentation was coauthored by the three of us, by another five main organizers of the conference and by Dr. Ayse Özmen (Calgary, Canada); it showed that carefully applied data mining and OR techniques can lead to deeper understanding of regional European labor markets, even in the hard case of *Small Data*.

"The conference was very well evaluated by all foreign guests and the country." – PhD. Eng. Magdalena Graczyk-Kucharska from Faculty of Engineering Management stated. The conference was attended by scientists from the USA, Finland, Slovakia, Slovenia and Ukraine. During the sessions and workshops, results of works on the developed method of accelerating the acquisition of cross-cutting competences were discussed.

Dr Liisa Timonen from Karelia University of Applied Sciences in Joensuu, Finland, presented her opinion on methods and reflections related to education, "which is also the aftermath of the ECMT+ project", PhD. Eng. Marek Goliński from Faculty of Engineering Management pointed out. "It is really constructive when during the sessions we can discuss together, exchange information, plans..." The best proof of the fact that the topics of the speeches and the results of the conducted research was so interesting were the lively talks which continued during the coffee breaks in the corridors, during the lunches and the joint conference dinners.

"Talks with our partners at transnational meetings are always fruitful and bring something new." – PhD. Eng. Maciej Szafrąński concluded. "Nice was the keen interest in our work in the project by other scientists, not involved in the ATC/Erasmus+ project." – he added.

Most of the conference participants' speeches can be followed on Facebook under **Accelerate Transversal Competences**, where live broadcasts were made. In addition, a video promoting the event will be released soon. It will also be possible to see the speeches from the Plenary Session and Session 1 - the information will be also posted on Facebook as well.



Klaudyna Bogurska-Matys  
Akcelerator Wiedzy Technicznej  
Poznan University of Technology  
Pl. Marii Skłodowskiej-Curie 5, 60-965 Poznan, Poland  
[klaudyna.bogurska-matys@put.poznan.pl](mailto:klaudyna.bogurska-matys@put.poznan.pl)

Daria Rosińska  
Akcelerator Wiedzy Technicznej  
Poznan University of Technology  
Pl. Marii Skłodowskiej-Curie 5, 60-965 Poznan, Poland  
[daria.rosinska@put.poznan.pl](mailto:daria.rosinska@put.poznan.pl)

Gerhard-Wilhelm Weber  
Chair of Marketing and Economic Engineering  
Faculty of Engineering Management  
Poznan University of Technology  
ul. Strzelecka 11, 60-965 Poznan, Poland  
[gerhard-wilhelm.weber@put.poznan.pl](mailto:gerhard-wilhelm.weber@put.poznan.pl)



# **Report on DEA40 Data Envelopment Analysis Kicks Off with Its 40th Anniversary Conference**

**Birmingham, UK, April 16-18, 2018**

<http://www.aston.ac.uk/aston-business-school/>

International Conference on Data Envelopment Analysis (<https://deaconference.com/dea40/call-for-papers/>) was organized to celebrate the success of DEA on its 40th anniversary of the publication of its seminal paper. It was held on April 16-18, 2018, at Aston Business School, Aston University, Birmingham (<http://www.aston.ac.uk/aston-business-school/>), United Kingdom, one of the largest and most successful business schools in Europe.

The conference, mainly organized by Professor Ali Emrouznejad and Professor Emmanuel Thanassoulis, both from Aston Business School, was proven extremely successful as reflected by the number and quality of papers submitted. It attracted 190 participants - one of them: Mila, with 200 papers from 43 different countries of the world - including emerging and developing countries, for which the methods of DEA mean a great promise, too.

The participants included some of the best-known DEA researchers of the world.

Charnes, Cooper and Rhodes introduced DEA as a linear-programming based method for measuring the comparative efficiency of Decision Making Units (DMUs) in their paper which appeared in European Journal of Operational Research 2 (1978) 429-444. Ever since those early days, DEA has grown exponentially in theory and real-world application. Today, DEA enjoys a high reputation and it is a very important element of so many prestigious conferences in every year and in all over the world - including of conferences of EURO, IFORS, etc.

During recent decades, many thousands of theoretical works extended the methodology of DEA and were published, in order to address numerous aspects of real-life problems, to teach our community of researchers, educators, decision makers and practitioners. With some delay after the theoretical advances, strong applications became implemented, and they are well-established nowadays, too. They cover subjects from the regulation of utilities to service delivery in finance, health care, education and further private or public service sectors.

As the 40th Anniversary of the publication of the aforementioned seminal EJOR article on DEA, the congress DEA40 celebrated the great success of DEA with a large number of excellent and premium papers in the field.

A special feature of the conference was a stream dedicated to the use of DEA in Regulation which encouraged the participation of non-academic practitioners in the Regulation of Energy from Norway, Finland, Denmark, Holland, Brazil, Germany and the United Kingdom.

Other streams included in the parallel sessions were Banking and Finance, Transportation, Statistical Inference, Productivity in Industry or State Level, Education, Target Setting

and Index Measures, Cross Efficiency Computation and Application, Regulation, Agriculture, Returns to Scale, Network DEA, Discrimination in DEA, Bibliometrics, Health and Hospital, Stochastic Frontier, Fuzzy DEA, and other DEA Applications. For closer details about the conference and its program please visit its booklet under <http://deaconference.com/dea40/DEA40-Program.pdf>.

DEA is one of the key methods of assessing the comparative efficiency of organizations like schools, hospitals, banks, sales outlets and the like. It is widely used as a performance measure in the assessment of the scope for efficiency gains that regulators make in the context of price determinations.

The intermingling of academicians and practitioners created a lively atmosphere for exchange of ideas which enabled them to gain more knowledge on areas needing further research collaborations and learned more about the latest developments in the methods which they need in the course of their own work. The conference further featured a special session dedicated to the neophytes in the field of research and how they can make research outputs that could be published in top journals in their fields of specialization, by listening to a panel of top academic journal editors.

During the days of the conference, friendship between participants became deepened, new friendship became established, and exciting joint research projects were discussed - including the role of modern Operational Research and its scientific community worldwide, endorsed by DEA! After the conference, Mila and Willi provided the organizers and, thus, all participants from all over the world, with helpful and attractive material about two upcoming highlights of our international OR community: EURO 2018 in Valencia, Spain (<http://euro2018valencia.com/>), and EURO 2019 in Dublin, Ireland (<https://www.euro2019dublin.com/>).

The carefully prepared scientific program and the social community provided, together with the amazing and buzzing city of London, were enjoyed by all the participants who came from near and far. In fact, we hope and trust that this conference in London was a special moment in the history of OR and on the service of DEA to the people of the world, to their living conditions, cooperation, peace and well-understanding.





Milagros Baldemor [milagros\\_baldemor@yahoo.com.ph](mailto:milagros_baldemor@yahoo.com.ph)  
Ali Emrouznejad [a.emrouznejad@aston.ac.uk](mailto:a.emrouznejad@aston.ac.uk)  
Gerhard-Wilhelm Weber [gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

# Report on ICEST 2018 Opens Doors to OR Opportunities

Medas, Indonesia, May 4-6, 2018

<http://www.icest.net/home.php>

The 3rd Conference on Computer, Environment, Agriculture, Social Science, Health Science, Engineering and Technology (ICEST2018) with the theme *A Spectrum of Maritime Advancement in Science, Technology and Opportunities* paved way to its neighboring countries in the field of Operational Research as it was held last May 4-6, 2018, at the Garuda Plaza Hotel, Medan, Indonesia.

Medan, by hosting various OR conferences in recent decades, has developed strongly to become one of the centers of activity and inspiration of OR within Indonesia, and with an impact on the whole region and worldwide.

The conference ICEST2018 served as an avenue to promote research results which could generate solutions to existing problems and issues in the different fields mentioned. Furthermore, projects of collaboration between the researchers, practitioners and users may open opportunities and facilitate communication between institutions of learning involved. Interaction between the research enthusiasts could even generate creative ideas and solutions in one way or the other, studies and new approaches related to their different fields of specialization. Paper presentations related to medicine and agriculture captured the interest of the participants while researches on ethics, society and law were the most attended ones.

The event was highlighted by the keynote speeches of Prof. Jasni Mohamad Zain of Universiti Teknologi Mara, Malaysia, on her topic: "Conceptual Framework for Lightweight Ciphertext Policy - Attribute-based Encryption Scheme for Internet Devices", the topic of Dr. Tutut Herawan of Universiti Teknologi Yogyakarta, Indonesia, on "Substantial Differences Between Fuzzy Set and Soft Set Theories", and Dr. Ameilia Zuliyanti Siregar of Universitas Sumatera Utara, Indonesia, who discussed her paper entitled "The Growth Production Paddy with Legowo Row Planting System and Fish Farming Support of Security Food and Maritime in Indonesia". Prof. Milagros Baldemor of DMMMSU, Philippines, was invited as a guest paper presenter being a Keynote Speaker of 2017 ICEST Conference. Her paper was on the "Efficiency of LGUs in Northwestern Philippines as to the Attainment of the MDGs".

The conference was attended by 160 participants with 130 paper presenters and 11 poster presenters. As one way of showing warm hospitality, the conference organizers, led by Prof. Rahmat Sembiring and Dr. Ameilia Siregar, brought the participants to beautiful sceneries of the place like Lake Toba and Tomok.

During the days of this scientific conference, Mila served as a messenger of our international OR conferences, such as EURO 2018 in Valencia and EURO 2019 in Dublin, and our special activities, such as IFORS Developing Countries Online Resources ([http://ifors.org/developing\\_countries/index.php?titleMain\\_Page](http://ifors.org/developing_countries/index.php?titleMain_Page)).

Please find further information about ICEST2018 at its homepage <http://www.icest.net/home.php>.



Milagros Baldemor [milagros\\_baldemor@yahoo.com.ph](mailto:milagros_baldemor@yahoo.com.ph)

Gerhard-Wilhelm Weber [gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

# Report on SEMIRATA-ICST 2018 Levels Up in Operational Research

Medan, Indonesia, May 4-6, 2018

<https://ocs.usu.ac.id/semirataicst/>

*The Role of Science and Technology to Strengthen National Unity and Competitiveness* was the valuable theme of the recently concluded SEMIRATA-ICST 2018 International Conference in Medan, Indonesia. In fact, Seminar Nasional & Rapat Tahunan - International Conference on Science & Technology (SEMIRATA-ICST) 2018 was successfully held at the Medan Convention Center, Medan, Indonesia, last May 4-6, 2018.

The beautiful city of Medan, through its Universitas Sumatera Utara and, especially, the very active research group of Northern Sumatra in Mathematics and Operational Research, established by Professor Herman Mawengkang, has contributed enormously to our international OR family and its scientific events.

The traditional conference subjects were focused in the fields of Mathematics and Natural Sciences; formerly they were celebrated as an annual seminar and a meeting of deans and heads of Study Programs in collaboration with 19 State Universities in Western Indonesia. But starting with this year of 2018, the seminar has leveled up from national to international, and it became named as SEMIRATA International Conference on Science and Technology (SEMIRATA ICST) 2018. This event aimed to (a) promote the role of science and technology in supporting national unity and competitiveness; (b) discuss research results in the field of Mathematics and Natural Sciences among researchers and stakeholder; and (c) facilitate communications and discussions related to issues, opportunities and actual progress of Mathematics and Natural Sciences to support the advancement of development in Indonesia. For this reason, it also aimed to facilitate collaboration among Operational Researchers and OR stakeholders, and to discuss about the development as well as opportunities in the field of research and technology in the mentioned subject areas.

Interaction and communication between the participants from the different regions of Indonesia can generate ideas and research collaborations in an effort to address actual issues related to Science and Education. Researches formed from such collaborations will not only help promote national unity in Indonesia, but also improve self-sufficiency and help the institutions to become globally competitive.

The conference was highlighted by the keynote speeches delivered by Prof. Milagros R Baldemor (Mathematics) of Don Mariano Marcos Hospital State University, Philippines; Prof. Ishak Ahmad (Chemistry) of Universiti Kebangsaan, Malaysia; Prof. Rachel Schwartz (Biology) University of Rhode Island, USA and Dr. Tulus I. Nasution (Physics) of Universitas Sumatera Utara, Indonesia.

A total of 479 paper presenters attended the conference. Of the 479 papers, 87 were on Mathematics, 84 on Physics, 115 on Chemistry, 123 on Biology and 70 on Education.



The Organizing Committee, chaired by Dr. Nursahara Pasaribu, believed that the current condition of science and technology in Indonesia, particularly in Mathematics and Natural Sciences, still requires a special attention. Thus, there is a need to hold conferences of this type in order to strengthen national unity and competitiveness in the host country.

During these days of scientific meeting, Prof. Milagros Baldemor, one of the keynote speakers, provided the organizers and participants with helpful and attractive information about two highlights in our international OR community: EURO 2018 in Valencia, Spain (<http://euro2018valencia.com/>), and EURO 2019 in Dublin, Ireland (<https://www.euro2019dublin.com/>).

For closer information regarding the conference, we refer to the webpage <https://ocs.usu.ac.id/semirataicst/>.



Milagros Baldemor [milagros\\_baldemor@yahoo.com.ph](mailto:milagros_baldemor@yahoo.com.ph)

Gerhard-Wilhelm Weber [gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

## Report on EWGCFM

### The 61st Meeting of EWGCFM in medieval Kaunas, Lithuania

**Kaunas, Lithuania, May 16-18, 2018**

[ewgcfm2018.ktu.edu](http://ewgcfm2018.ktu.edu)



The 61st Meeting of EURO Working Group for Commodities and Financial Modelling took place in Kaunas, Lithuania, on May 16-18, 2018.

The conference #ewgcfm2018 brought together scientific experts on financial modelling, statistics and economics, decision-making analysis and methods, FinTech and Blockchain, LittleData to BigData in finance and investment, game theory and mathematical economics, banking, insurance, pension planning, pricing and hedging of derivatives, credit and systemic risk, application of OR methods in finance, etc. Kaunas city hosted EWGCFM conference for the first time, while in Lithuania it was organized for second time already (after Vilnius, 2001).

The world-wide audience from more than 10 countries (Lithuania, Italy, Czech Republic, Germany, Poland, South Africa, Canada, United States, Austria, Taiwan and Slovakia) was welcomed by the president of Kaunas Chamber of Commerce, Industry and Crafts, dean of the Faculty of Mathematics and Natural Sciences, Kaunas University of Technology, president of EURO Working Group for Commodities and Financial Modelling and chair of Lithuanian Operational Research Society. During three days 3 plenary (Milos Kopa, Gerhard-Wilhelm (Willi) Weber and Stan Uryasev) and 2 invited (Georg Pflug and Andrius Adomonis) speakers gave their speeches, during 7 regular sessions were presented and discussed more than 30 papers. With 36 presenters, the conference exceeded the average size of EWG CFM conferences in the past.

The conference webpage [ewgcfm2018.ktu.edu](http://ewgcfm2018.ktu.edu), since launched in December 2017, was visited for 1258 times, as google analytics says. People from more than 60 countries at least once followed the link to the webpage. Excluding Lithuania the top 10 audience was from Italy (7,31 %), Czech Republic (6,84 %), Germany (3,34 %), Poland (3,18 %), South Africa (2,94 %), Canada (2,86 %), United States (2,78 %), Austria (2,70 %), Taiwan (2,38 %) and South Korea (1,99 %). Top 10 of information sources (excluding direct and google/bing

searches) are: conference-service.com/referral (21%), facebook.com/referral (16%), researchgate.net/referral (10%), ifors.org / referral (9%), t.co/referral (8%), euro-online.org/referral (7%), karlin.mff.cuni.cz/referral (5%), zimbra.polymtl.ca/referral (4%), mail.google.com/referral (4%), Newsletters/email (3%) and easychair.org/referral (3%).

Papers from topics discussed during the conference are welcome to be submitted to special issue of Central European Journal of Operations Research (IF(2016)=0.659) CEJOR. Deadline for submission is October 15, 2018. Following the regular procedure, papers may be submitted to journal Engineering Economics (IF(2016)=0.726) either.

The conference was organized by Financial Modelling group from the Faculty of Mathematics and Natural Sciences, Kaunas University of Technology together with EURO Working Group for Commodities and Financial Modelling (EWGCFM; cf. <http://www.ewgfm.eu/> for closer details).

Faculty of Mathematics and Natural Science (FMNS) dates back to 1922, and since then it evolved to leader in physical and technological sciences all over the Baltics States. Scientists of FMNS carry out high performance interdisciplinary scientific research in five main areas connected to sustainable development of science and technologies. FMNS cooperates with partners in both business and industry as well as state sector. Scientific activities and partnerships is linked with creation of unique study programmes in the region, and hosting of exclusive scientific events. KTU Big Data School - an international event focused on the development of knowledge and skills in the field of big data. The event will take place in Kaunas, Lithuania on September 26-28, 2018. KTU Big Data School 2018 is both theoretical and practical scientific event aiming at updating participants about the most recent advances in the critical and fast developing area of big data. The event is concentrated towards deep theoretical background and improving skills during practical workshops. More information is available at <https://bigdataschool.ktu.edu>. Workshop on mathematical solutions in business and industry (ESGI) usually takes place second week of June in Palanga a Baltic Sea beach resort of Lithuania. This is the unique event in Lithuania and the Baltic States during which a team of researchers dedicates one week to solve real-world industry problems using mathematical methods. In 2018, the event has attracted 5 companies and 30 participants from different countries and institutions. More information is available at <http://mathforbusiness.ktu.edu>.

After his plenary lecture, Willi kindly invited to our upcoming EURO conferences: EURO 2018 in Valencia (<http://euro2018valencia.com/>) and EURO 2019 in Dublin (<https://www.euro2019dublin.com/>).

Audrius Kabasinskas  
Kaunas University of Technology  
[audrius.kabasinskas@ktu.lt](mailto:audrius.kabasinskas@ktu.lt)

Gerhard-Wilhelm Weber  
Poznan University of Technology  
[gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

The tribute to the conference: *61th EWGCFM May 15-18, 2018*

*Thank to KTU campus  
The 61th meeting was gorgeous!*

*Audrius, the art director  
Impressed everyone with his favour*

*Brone The department Chief  
Gave a cheerful welcome brief*

*Stan the BPOE passionate  
Made the participants affectionate*

*Willi the impulsive systems creator  
Brought the participant to be a main actor*

*Milos gave great SD directions  
Providing scholars with great suggestions*

*Georg the magician of systemic risk  
Makes sure the GROUP will always persist*

*Dinner in the cellar  
Was a moment interstellar!*

*This meeting in Kaunas  
Will stay in our mind  
as an event of special kind.*

*President of EWG/CFM  
Rita Laura D'Ecclecia*



# Report on XXXI International Seminar of Ergonomics Human Factors in a Contemporary Organization

Poznan, Poland, May 23-25, 2018

<http://www.iset.poznan.pl/>

Whenever in the past organizers prepared International Ergonomics Seminars, they tried to create an opportunity of exchanging experiences between practitioners and theoreticians dealing with various areas of ergonomics. They strongly succeeded in broadening the issues of ergonomics discussed in previous years. The city of Poznan was chosen for the 2018 Seminar in the hope that this will give easy access to people from Poland and abroad and will be an attractive place to stay. This hope became fulfilled as stated below. So, 31st International Seminar of Ergonomics was organized by Poznan University of Technology - Faculty of Engineering Management, Polish Ergonomics Society - Poznan Branch, and Malopolska Higher School of Economics, endorsed by Federation of the European Ergonomic Societies and International Ergonomics Association (for closer details please visit <http://www.iset.poznan.pl/>). Conference venue was Poznan University of Technology Lecture and Conference Center (known from EURO 2016). Please find the detailed list of Organizers and of Advisory Board, including Krzysztof (Dr. Hankiewicz), under [http://www.iset.poznan.pl/organizatorzy\\_en.htm](http://www.iset.poznan.pl/organizatorzy_en.htm).

The common theme "Human factors in a contemporary organization" allowed for an approach that concerns diverse issues of ergonomics and safety, not limited to professional activity. It shows the interdisciplinary character of contemporary issues in science which require simultaneous actions in diverse directions to create a synergistic effect that will help to solve the undertaken issues, both theoretical and practical ones. Some statistic about seminar's success: It was attended by more than 100 participants, from 10 countries (Iran, Germany, Great Britain, Hungary, Italy, Netherlands, Poland, Portugal, Slovenia, Turkey); there were 5 keynote speakers in plenary sessions, over 50 presenters in 8 section sessions and poster session, additional student session - Conference of Young Adepts of Ergonomics, and a workshop.

These were the keynote speakers:

- Dr. Rafal Michalski (Wroclaw University of Science and Technology, Poland): "Application of Hidden Markov Models to Ergonomics";
- Prof. Dr. Gerhard-Wilhelm Weber (Poznan University of Technology, Poland; coauthors: Dr. Semih Kuter, Prof. Dr. Zuhail Akyurek): "Addressing Some Global Challenges with Earth-observing Satellite Data, New OR-Analytics and the Human Factor";
- Dr. Gyula Szabo (University of Szeged, Hungary): "Added value of ergonomics to manage hazardous materials";
- Prof. Dr. Leszek Pacholski (Poznan University of Technology, Poland): "Prospective changes of relation: human factor technology in vehicles manufacturing companies";
- Prof. Dr. Dave O'Neill (Chief Executive of the Institute of Ergonomics & Human Factors, UK): "Certification of ergonomists".

In these years' editions of the seminar, the organizers tried to expand the publishing possibilities. In 2018, selected peer-reviewed papers will be published electronically (ePdf) by

DesTech; they will be submitted for indexation, among others to Clarivate Analytics (formerly Thomson Reuters Web of Science). What is more, as an expression of the insertion of modern methods of Operational Research into this year's international seminar and into ergonomics in general, a special issue of CEJOR was arranged, with both of us as the guest editors, and is offered for paper submission to conference participants and interested members of the international community as well.

Through 31st International Seminar of Ergonomics and continued by its following publications, the following fields of Ergonomics and OR have been and are the subject of investigation and utilization, among others:

- Man in enterprise of digital economy,
- Ergonomics and challenges of robotization and AI,
- Man in modern, knowledge-based economy,
- Ergonomics in information processes and organization management systems,
- Human factor in organizational systems of lean production,
- Human factor in organizing concepts on agility of enterprises,
- Human factor and innovation and technological entrepreneurship of organizations,
- Man in pro-quality management of organizations,
- Development of human professional skills and employee training processes as key factor to competitiveness and business success of an organization,
- Ergonomic awareness of employees and its shaping,
- Safety culture in contemporary and future organizations,
- Continuous improvement of work safety,
- Ergonomic criteria in occupational risk assessment,
- Dissemination of ergonomic standards of working conditions,
- Work of older, disabled or yet disadvantaged people in contemporary and future organizations.

Willi was one of the plenary speakers with my presentation (cf. above) in fact, Willi actively participated in lively discussions succeeding many presentations at the seminar, gave feedback and advice on the basis of my knowledge about OR research in our EURO and worldwide OR community. With pleasure he introduced EURO to the participants and invited old and new friends to actively take part at our conferences, such as EURO 2019 in Dublin (<https://www.euro2019dublin.com/>) which we now prepare.

These innovative and peaceful days of science and friendship in Poznan, supported by a wonderful hospitality, will always be reminded with a spirit of thankfulness, motivation and inspiration!





Krzysztof Hankiewicz  
Faculty of Engineering Management  
Poznan University of Technology  
Chair of Management and Computing Systems  
Poznan, Poland  
[krzysztof.hankiewicz@put.poznan.pl](mailto:krzysztof.hankiewicz@put.poznan.pl)

Gerhard-Wilhelm Weber  
Faculty of Engineering Management  
Poznan University of Technology  
Poznan, Poland, and IAM, METU, Ankara, Turkey  
[gerhard-wilhelm.weber@put.poznan.pl](mailto:gerhard-wilhelm.weber@put.poznan.pl)

# Report on INFORMS International in Taiwan A Better World Through OR, Analytics and AI

Taipei City, Taiwan, June 17-20, 2018

<http://meetings2.informs.org/wordpress/2018international/>

2018 INFORMS International Conference was held on June 17-20, 2018, in Taipei City located in beautiful Taiwan Island. The conference was a great gathering with more than 800 participants from academia and industry spanning 30 countries. The theme of the conference was "A Better World Through OR, Analytics and AI", and the participants discovered trends in analytics, big data, deep learning, and artificial intelligence. The conference homepage <http://meetings2.informs.org/wordpress/2018international/> offers a variety of information of the entire symposium. Up-front, we should mention two novel elements, namely, the exciting competition "Future Finance and Healthcare Hackathon" which started even before the regular conference program, and the "Women in Technology at INFORMS Taipei" event of panel and dinner.

In the **Plenary Lectures**, Prof. Dr. Christopher Tang (University of California-LA, Anderson School of Management, Operations and Technology Management, Los Angeles, CA, USA) discussed "Making Supply Chain Transparent for a Better World: Information and Analysis", and Prof. Dr. John Buzacott (York University, Toronto, ON, Canada) presented the ways of "Improving the Manufacturing Systems by Understanding the Variability".

The **Keynote Speakers** presented insightful information regarding OR, Analytics, and AI: Prof. Dr. John Birge (University of Chicago, Booth School of Business, Chicago, IL, USA) on "The Value of OR in Network Analysis"; Prof. Dr. Richard Larson (Massachusetts Institute of Technology, Cambridge, MA, USA) on "The Services Industries: Some Insights Provided by Operations Research"; Prof. Dr. David Yao (Columbia University, IEOR Department, New York, NY, USA) on "AI, Risk and Analytics - Rethinking SCM"; Prof. Dr. Oleg Gusikhin (Ford Motor Company, Dearborn, MI, USA) on "Smart Production of Smart Vehicles"; Prof. Dr. Guillermo Gallego (HKUST, Kowloon, Hong Kong) on "Asymptotically Optimal Policies for Multi-Item Joint Inventory and Dynamic Pricing Control with Stockout-based Substitution"; Prof. Dr. Radhika Kulkarni (SAS Institute Inc., Cary, NC, USA) on "Machine Learning, Artificial Intelligence and Optimization: Opportunities for Inter-Disciplinary Innovation"; Prof. Dr. Shmuel Oren (University of California-Berkeley, Berkeley, CA, USA) on "Smart Markets for a Smart Electricity Grid"; Prof. Dr. Lam Khin Yong (NTU-Nanyang Technological University, Singapore) on "The Entrepreneurial University: Integrating Knowledge and Innovation for Impact"; Prof. Dr. Edward Kaplan (Yale University, Yale School of Management, New Haven, USA) on "Operations Research and Public Health"; Prof. Dr. San-Cheng Chang (School of Big Data Management, Soochow University, Taipei, Taiwan; The Ex-Premier of Republic of China) on "From Open Data to Digital Economy"; and Prof. Dr. Sriram Raghavan (IBM Research, New Delhi, India) on "Transforming Industries and Professions through AI, IoT and Blockchain".

The conference also included Tutorials, Industry Tracks, Invited Clusters, Invited Sessions and Special Sessions, which covered a wide range of topics such as Machine Learning, Big Data Analytics, Supply Chain 4.0, Digital Revolution, Artificial Intelligence, Smart Manufacturing, Smart Healthcare, and Smart Agriculture. The technical sessions also helped to broaden and deepen the knowledge in OR/MS, and to initiate collaboration opportunities. One of the Invited Cluster, called "Data Mining", was organized by Willi; it also included Tülin's presentation "A Data Mining Based Forecasting Methodology" and his own one: "Relationship between Investors' Neural-Behavioral Responses and Finance by Identifying Coupled Systems of Stochastic Differential Equations, Using MARS".

The Social Program was one of the unique features of the conference. The Reception and Gala Dinner provided a great opportunity for the participants to experience the traditional arts, handcrafts, and food, as well as to socialize and network. In the Gala Dinner, the performances of Sichuan face-changing opera and traditional Taiwanese Aboriginal dance were remarkable. The organizing committee also arranged special tours to visit some of the hidden gems of Taipei such as Jiufen, Shifen and Tamsui.

A warm **thanks** goes to both the Organizing and the Program Committees, and to all the people from INFORMS, who spent so much of dedicated time and tremendous work to organize this successful conference. The enormous efforts spent by the team of OC Chair Professor Grace Lin (Asia University Taichung, Taiwan), at the side of the PC Chairs Prof. Dr. Kathryn E. Steckle (Naveen Jindal School of Business, University of Texas at Dallas, USA) and Prof. Dr. Chung-Yee Lee (Office of Institutional Research, HKUST, Hong Kong, China), to receive and host the guests, and to facilitate future collaboration at all levels between scientists and practitioners from all over the world, will always remain associated with 2018 INFORMS International Taipei.

One example of this spirit of togetherness is given by an exchange with Plenary Lecturer Prof. Dr. Christopher Tang who offered valuable material to our IFORS Developing Countries Online Resources ([http://ifors.org/developing\\_countries/index.php?title=Main\\_Page](http://ifors.org/developing_countries/index.php?title=Main_Page)). Last but not least, Willi found so many open minds and hearts during 2018 INFORMS International Taipei when the word came to our EURO activities, especially, EURO 2018 in Valencia (<http://euro2018valencia.com/>) and EURO 2019 in Dublin (<https://www.euro2019dublin.com/>).



Tülin Inkaya  
Industrial Engineering Department  
Bursa, Turkey  
[tinkaya@uludag.edu.tr](mailto:tinkaya@uludag.edu.tr)

Gerhard-Wilhelm Weber  
Faculty of Engineering Management  
Poznan University of Technology  
Poznan, Poland, and IAM, METU, Ankara, Turkey  
[gerhard-wilhelm.weber@put.poznan.pl](mailto:gerhard-wilhelm.weber@put.poznan.pl)

## Report on ICAME'18

### Balikesir hosts OR meeting which exceeds the limits

**Burhaniye, Balikesir, Turkey, June 27-29, 2018**

<http://icame.balikesir.edu.tr>

The *International Conference on Applied Mathematics in Engineering* (ICAME'18) was successfully held in Burhaniye, Balikesir, Turkey, during June 27-29, 2018 with attendance of participants from all over the world. Burhaniye, Balikesir, is located in a very ancient and beautiful part of the Aegean region.

The conference was hosted by Balikesir University and technically supported by IJOCTA (<http://ijocta.balikesir.edu.tr>) under the leadership of the Chair Prof. Dr. Necati Ozdemir (Department of Mathematics, Balikesir University, Turkey). This event provided an excellent academic platform for researchers to present their latest research and evolving findings of applied mathematics on engineering, physics, chemistry, biology and statistics. The field of Operational Research, as a recognized and popular key technology, played a central role in many scientific presentations and in the discussions.

A total of 224 presentations was successfully presented by participants from 15 different countries, i.e., Algeria, Argentina, Bulgaria, Germany, India, Libya, Morocco, Nigeria, Portugal, Saudi Arabia, South Africa, Turkey, United Arab Emirates, United Kingdom and United States of America. The special sessions with the themes of their chairs: Prof. Dr. Gerhard-Wilhelm Weber (Faculty of Engineering Management, Chair of Marketing and Economic Engineering, Poznan University of Technology, Poland, and IAM, METU, Turkey) together with Prof. Dr. Ahmet Sahiner (Department of Mathematics, Süleyman Demirel University, Isparta, Turkey) on *Modelling & Optimization*, Prof. Dr. Mehmet Kemal Leblebicioglu (Department of Electrical and Electronics Engineering, Middle East Technical University, Turkey) on *Control Theory & Applications*, Prof. Dr. Dumitru Baleanu (Department of Mathematics, Cankaya University, Turkey) on *Fractional Calculus with Applications in Biology*, Prof. Dr. Hossein Jafari (Department of Mathematics, University of Mazandaran, University of South Africa) on *Numerical Methods in Fractional Calculus*, Prof. Dr. Guo-Cheng Wu, (Neijiang Normal University, China) on *Discrete Fractional Calculus with Applications*, Prof. Dr. Dumitru Baleanu (Department of Mathematics, Cankaya University, Turkey) on *New Fractional Derivatives and Their Applications*, Prof. Dr. Hüseyin Merdan (Department of Mathematics, TOBB University, Turkey) on *Nonlinear Dynamical Systems and Chaos*, Prof. Dr. Hasan Bulut (Department of Mathematics, Firat University, Turkey) on *Analytical and Numerical Methods for Solving Nonlinear Partial Differential Equations*, Prof. Dr. Alireza Khalili Golmankhaneh (Islamic Azad University, Iran) on *Fractal and Fractional Calculus*, contributed to researchers' exchange of information and planning OR collaboration with each other in interdisciplinary areas of emerging and future working plans. Furthermore, the significant session of round table discussion widened the horizons of the young scientists by elaborating recent developments in trending topics.



**Plenary Speakers** were with the topics of their given talks: Prof. Dr. Albert C. J. Luo (Department of Mechanical Engineering, Southern Illinois University Edwardsville, United States of America) *Towards infinite countable bifurcation trees of period- $m$  to chaos in nonlinear dynamical systems with saddle-nodes*, Prof. Dr. J.A. Tenreiro Machado (Department of Electrical Engineering, Polytechnic Institute of Porto, Portugal) *Fractional Calculus: Fundamentals, Concepts and Some Applications*, Prof. Dr. Jordan Hristov (Department of Chemical Engineering, University of Chemical Technology and Metallurgy, Bulgaria) *Exponential and Related Non-Singular Memories: What is following after that in modelling technology?*, and also **Invited Speakers**: Prof. Dr. Carla M.A. Pinto (Department of Mathematics, Polytechnic Institute of Porto, Portugal) *On recent applications of non-integer order models to biological systems*, Prof. Dr. Mehmet Kemal Leblebicioglu (Department of Electrical and Electronics Engineering, Middle East Technical University, Turkey) *Observability, Controllability and Identifiability Problems in Some Unmanned Air, Sea and Underwater Vehicles*, and Prof. Dr. Ekrem Savas (Rector, Usak University, Turkey) *Some New Sequence Spaces*.

The rich scientific program was also matched by the well-thought out social program. A Gala Dinner was featured in folk dances and good food in BUBYO Hotel. The organizers were models of hospitality and generosity as they led the participants in a visit to spectacular Cunda Island (Ayvalik).

Throughout the days of conference, Burcu (Prof. Gürbüz) also served to represent Operational Research and she was available to give further information to the conference attendees about our OR events, by EURO, IFORS, etc.

The conference managed remarkable opportunity to discuss the connection between different branches of science, engineering and Operational Research and establish collaboration with other researchers from different universities in a very friendly environment. The participants of ICAME'18 was informed about the next edition of the conference, ICAME'20.



Burcu Gürbüz

[burcugrbz@gmail.com](mailto:burcugrbz@gmail.com), [burcu.gurbuz@uskudar.edu.tr](mailto:burcu.gurbuz@uskudar.edu.tr)

Gerhard-Wilhelm Weber

[gerhard-wilhelm.weber@put.poznan.pl](mailto:gerhard-wilhelm.weber@put.poznan.pl)



# Report on EWG-ORD 2018 Workshop: OR Window towards Sustainable Development

Madrid, Spain, during July 5-7, 2018

<http://eventos.ucm.es/16639/detail/ewg-ord-2018-workshop.html>

*Operations Research for Sustainable Development: Establishing Policy and Measuring Goal Attainment* was the theme of the EWG-ORD 2018 Workshop which was held at the Complutense University of Madrid, Spain, during July 5-7, 2018 (<http://eventos.ucm.es/16639/detail/ewg-ord-2018-workshop.html>). This workshop was a satellite event of EURO 2018 International Conference, which took place in Valencia, Spain, on July 8-11, 2018 (<http://euro2018valencia.com/>).

EWG-ORD stands for EURO Working Group on Operational Research for Development (<https://www.euro-online.org/web/ewg/29/ewg-ord-euro-working-group-on-operations-research-for-development>). EWG-ORD's mission is to:

- disseminate state-of-the-art knowledge and to support research in operational research for (sustainable) development,
- assist in gathering the Operational Research for development communities in Europe organized under the umbrella of EURO,
- support preparation, refereeing and editing of publications,
- establish regular information channels and regular meetings,
- involve industrial organizations and users of optimization in the activities listed above,
- provide a vivid exchange between scientific experience and enthusiasm of the youth,
- encourage the maturation of a common and developing Europe, and
- deepen the peace and friendship within Europe and across all corners of the world.

EWG-ORD 2018 workshop aimed to bring together Operational Researchers who have utilized OR tools to address problems on sustainable development like education, health, water, economy, agriculture, environment, energy, disaster management, climate change, etc. From these researches would benefit not only developing countries, but also other nations of the world as a whole and in togetherness. The hosting Complutense University of Madrid with its UCM-HUMLOG research group on Decision Aid Models for Logistics and Disaster Management (Humanitarian Logistics) is very well-known internationally for its enormous academic and practical OR experience related to the developmental subjects of our event.

With more than 40 attendees from more than 20 countries, this year's workshop featured 25 contributed papers, a practicum (workshop), and 2 distinguished invited talks. Together, the participants explored more than 11 of the 17 *Sustainable Development Goals* adopted by the United Nations to end poverty, to protect the planet, and to ensure prosperity for all.

Ten sessions were organized during the workshop namely:

- Electricity Models for Sustainability,
- Clean Water, Sanitation and Life Below Water,

- Industry, Innovation and Infrastructure,
- Quality Education,
- Evacuation and Disaster Planning,
- Sustainable Cities,
- Supply Chain and Logistics,
- Models for Sustainable Development,
- Health and Well-being for People, and
- Clean Energy.

At most four investigations were presented in each session. Each paper presentation was enriched by the comments of one assigned participant, called as Reactor, and by further questions from other interested researchers.

Furthermore, during the opening session, a first Invited Talk was delivered by Dr. Claudia Cristina Rave from Fluir.D.Lab Laboratorio de Decisión, Columbia, on "Scheduling vs Prioritization Assessment for Infrastructure Public Investment: A Case Study, Regional Road Network of Antioquia, Columbia". A second Invited Talk was given by Prof. Zilla Sinuany-Stern of Ben-Gurion University of Negev, Israel, on "OR Modeling of Preparedness for an Earthquake Disaster".

A workshop on "Operational Research for Today and Tomorrow: Mentoring research Ideas" was given by the Co-Chairs of the Scientific Program Committee of the workshop, Prof. Gordon Dash and Prof. Nina Kajiji, both from University of Rhode Island, USA.

After the closing session on the second day, a dinner took place to unite the participants and paper presenters, and allow them to discuss among themselves future collaborations. On July 7, the Local Organizing Committee with its Chair, Prof. Begona Vitoriano from the host university, brought the participants to Toledo, Spain, for them to see the beauty and ambiance of historical Spain, which they enjoyed most. The care and hospitality which the local OC spent on their guests from all over the world were very sincere and truly outstanding. The support of the workshop sponsors - Complutense University of Madrid (UCM), the Interdisciplinary Mathematics Institute of UCM, Statistics and Operational Research Society of Spain (SEIO), and the University of Rhode Island (USA) - fostered the great scientific and social success of EWG-ORD 2018.

The workshop was celebrated in peace, friendship and the readiness to serve the international community. Participants and interested community are invited to submit to a CEJOR special issue prepared at the occasion of EWG-ORD 2018 Workshop. The support, guidance and encouragement of Honorary Chair of EWG-ORD, Dr. Elise del Rosario (Manila, Philippines) contributed a lot to the success of the workshop. In the Closing Session, Willi welcomed the participants to attend EURO 2019, Dublin, Ireland (<https://www.euro2019dublin.com/>), and to actively contribute to its program in streams and sessions.



Milagros Baldemor  
[milagros\\_baldemor@yahoo.com.ph](mailto:milagros_baldemor@yahoo.com.ph)

Begoña Vitoriano  
[bvitoriano@mat.ucm.es](mailto:bvitoriano@mat.ucm.es)

Gerhard-Wilhelm Weber  
[gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

## Report on OR 18 Brussels

### Exchange of new ideas, methods, and recent developments in OR

Brussels, 12-14 September, 2018

<https://www.or2018.be>

This year, the International Conference of Operations Research (OR) was held on 12-14 September, 2018 in the lively "Châtelain" area of Brussels, the capital and the hidden treasure of Belgium and of Europe. The conference was co-organized by Belgian and German OR societies with the support of Université Libre de Bruxelles (ULB) and the chair of the organizing committee was Prof. Bernard Fortz (ULB).

The conference attracted 574 participants from 35 different countries. The conference hosted 2 plenary, 8 semi-plenary speakers, and 404 talks in 125 sessions. The participants had the opportunity to listen to many inspiring presentations on emerging theoretical, methodological, and applied topics (<https://www.or2018.be>).

The scientific part of the conference started with the opening Plenary Talk, annual EURO Plenary, by Prof. Ivana Ljubic from ESSEC Business School, Paris. The focus of her talk was on new branch-and-cut algorithms for solving mixed-integer bilevel linear programs. The Plenary Talk of Prof. Holger Hoos, from Universiteit Leiden, provided a discussion on algorithm selection and configuration techniques, auto-tuning and automated machine learning. He pointed out the impact of these techniques in solving discrete optimization problems in terms of solution time as well as solution quality.

During the opening session, the GOR Master Awards, GOR PhD awards, and GOR company award were also announced. The Master awardees of this year are Patrick Gemander from Friedrich-Alexander-Universität (The Clique-Problem under Multiple-Choice Constraints with Cycle-Free Dependency Graphs), Magdalena Paulina Lippenberger from Technische Universität München (An Adaptive Large Neighborhood Search for Routing and Scheduling Carsharing Service Requests), and Daniel Schermer from Technische Universität Kaiserslautern (Algorithms for the Vehicle Routing Problem with Drones).

The GOR PhD Awardees of this year are Dr. rer. pol. Ann-Kathrin Rothenbächer from Johannes Gutenberg-Universität Mainz (Contributions to Branch-and-Price-and-Cut Algorithms for Routing Problems), Dr. rer. oec. Marc Maiwald from Universität Duisburg-Essen (Robust Evacuation Planning for Urban Areas), Dr. rer. pol. Maximilian Schiffer from RWTH Aachen (Logistics networks with intermediate stops - Designing innovative and green solutions), and Dr. rer. nat. Jonas Schweiger from Technische Universität Berlin (Exploiting structure in non-convex quadratic optimization and gas network planning under uncertainty).

The OR2018 conference also hosted a Semi-Plenary Talk by Dr. Henrik Imhof from Sixt GmbH & Co. Autovermietung KG, the holder of this year's GOR company award, on Optimization, Data Science, and Machine Learning in Car Rental Revenue Management. This was not the only semi-plenary talk of the conference. The participants enjoyed the talks by many

other achieved speakers, namely, Prof. Miguel F. Anjos, Prof. Nadia Brauner, Prof. Richard Hartl, Prof. Arie Koster, Prof. Stefan Pickl, Prof. Francisco Saldanha da Gama, and Prof. Greet Vanden Bergh. It was truly hard to choose among the semi-plenary talks given in four parallel sessions as well as the talks in other invited and contributed parallel sessions.

The social program of the conference started with an informal Get-Together event on the evening of 11 September at the conference venue. This was a very good opportunity to get to know the conference venue and to chat with the colleagues before the actual conference began. The evening of the first day of the conference welcomed also those who couldn't make it to the Get-Together with a reception at the Solbosch Campus of ULB in a very warm environment.

Probably, the most interesting social event of the conference was the Gala Dinner held inside the Belgian Comic Strip Centre located in the historical old town of Brussels. The building of this museum was designed by Victor Horta, the world-famous Art Nouveau architect of Belgium, and originally it was used as a department store. After its restoration, in late 80s, the building was opened as a museum dedicated to the Belgian comics (<https://www.comicscenter.net>). The attendees of the Gala Dinner had the chance to enjoy many masterpieces by the Belgian comic strip artists. The Gala Dinner was followed by a very special DJ Party led by DJ KrazyBen (Bernard Fortz; cf. Picture 1) inside the museum.



The conference ended with closing remarks, several conference announcements (e.g., OR 2019 in Dresden, Germany, introduced by its Host, and EURO 2019 in Dublin, Ireland (<https://www.euro2019dublin.com/>) introduced by PC Chair Prof. Luis Gouveia and Willi).

Although the party of the previous night lasted until 2am, the morning sessions of the last day attracted the attendees and a very successful organization of the OR conference was left behind with the exchange of precious scientific knowledge and beautiful memories.



Hatice Calik

LORIA - Lorraine Research Laboratory in Computer Science and its Applications

University of Lorraine, France

[hatice.calik@univ-lorraine.fr](mailto:hatice.calik@univ-lorraine.fr)

Gerhard-Wilhelm Weber

Faculty of Engineering Management

Poznan University of Technology, Poland

[gerhard-wilhelm.weber@put.poznan.pl](mailto:gerhard-wilhelm.weber@put.poznan.pl)



# **Report on PSAI 2018: Emerging Trends in Statistical Development in Operational Research**

## **Tagbilaran City, Bohol, Philippines, September 19-21, 2018**

The Philippine Statistical Association, Inc. <http://www.psai.ph> under the leadership of the National Statistician and Philippine Statistics Authority <https://psa.gov.ph> head Dr. Lisa Grace Bersales recently celebrated its 2018 Annual Conference with the theme: Emerging Trends in Statistical Development. The three-day conference took place last September 19-21, 2018 at the Bohol Tropics Resort, Tagbilaran City, Bohol, Philippines. The theme of the conference resonates in solidarity with the 50th Founding Anniversary of the Philippine Social Science Council, Inc. <https://www.pssc.org.ph>: 50 Year Legacy of the Social Sciences in Changing Times.

A whole day training was given on the first day of the conference with topics focused on Spatial Statistics, Infographics, Descriptive and Exploratory Techniques in R and Correcting Misconceptions in Statistics for the K-12 Curriculum. The trainings took place simultaneously in different venues within the resort.

The training workshop on Spatial Statistics given by Mr. Dennis P. Dizon of Geodata Systems Technologies, Inc. <https://www.geodata.com.ph>, focused on the contextualization of data analysis with location. Participants learned how to calculate and map basic spatial statistics using ArcGIS, as well as other common statistical applications such as MS Excel and R, and other Spatial Statistics concepts. He tackled on spatializing data, turning location data into points, turning area data into polygons, finding the center, measuring compactness, measuring orientation, measuring geographic distribution in MS Excel, identifying patterns and identifying clusters. He also introduced the use of ArcGIS in presenting data. The topic on Infographics was delivered by Prof. Gian Louise A. Roy of the University of the Philippines School of Statistics (UPSS). His lecture enabled the participants to learn how to clearly and concisely present data to a general audience in an interesting and insightful way; it also taught them some tips and tricks in creating information dissemination materials using infographics. Descriptive and Exploratory Techniques in R was discussed by Ms. Charlene Mae Y. Celoso of UPSS. The seminar is an introduction to data science analytics that will apply descriptive statistics and exploratory data analysis (EDA) in R, a free software for statistical computing and graphics. During the workshop, the participants were taught how to use the software. The descriptive techniques included the use of tables, charts and generalizations applied to data on hand and the exploratory techniques which involve visual displays and resistant statistics in investigating the collected and transformed data to reveal patterns, peculiarities and relationships. Finally, the training on Correcting Misconceptions in Statistics for the K-12 Curriculum was delivered by the director of the Philippine Statistical Research and Training Institute (PSRTI) <https://psrti.gov.ph>, Dr. Josefina V. Almeda. Her lecture elucidated common statistical concepts by discussing the underlying theories and correcting common misconceptions. Topics included hypothesis testing, p-value, Slovin's formula, among others. She presented different cases like misconceptions about Statistics, its major fields, the sources of errors in data collection, sampling errors, survey operations, graphical presentations, and summary measures.

The trainings in the four different areas were well-attended and were deeply appreciated by the participants as reflected in their evaluation forms.

The highlight of the opening ceremony of the two-day Annual Conference on September 20-21, were the Keynote Speeches of Dr. Rosemarie G. Edillon, Undersecretary of the Planning and Policy National Development Office of the National Economic Development Authority and Dr. Lisa Grace Bersales, the PSAI President. In her speech, Dr. Edillon left a significant line to ponder upon - that "Knowledge is the oil of tomorrow". Dr. Bersales' speech tackled the "Emerging Trends of the Philippine Statistical Development Program (PSDP) 2018-2013: Focus on Measuring Sustainable Tourism" a strategy for the Sustainable Development Goals.

Scientific Sessions followed and they were categorized under the following Operations Research Topics: (a) Student Papers focused on Diesel Prices and Food Inflation on Non-food Inflation Rate: A Vector Autoregressive Analysis; Spatial Point Pattern Analysis of Drug Related Crimes, Determinants of Depressive Symptoms in Undergraduate UPLB Students: a Joint Correspondence Analysis; (b) Inflation, Poverty and Train Law, Modeling Philippine Inflation Using Non-linear Models; (c) Latest Technology like Harnessing Big Data for Development, Use of Latest Technology in Data Capture for Consumer Prices, Map-based or Location-based Census Operation Using Modern GIS Platform; (d) Redesign - like Measuring Quarterly Regional Progress through Regional Development Index; (e) Student Papers on Pattern Recognition of Suicidal Ideation, Dynamic Relationship Among Cryptocurrency (Bitcoin) Philippine Stock Market and Peso-Dollar Exchange Through Vector Autoregressive Analysis, Econometric Analyses on Possible Determinants of Hunger Incidence in the Philippines; (f) Statistical Models in Practice like Multivariate ARMA Model, Fourier Series Model and Numerical VaR Estimation; (g) Spatial - Crime Hotspot Mapping, Simulated Illustration of a Dissimilarity Index in Spatial Area Data Using Bayesian Inference, Spatio-temporal Analysis of Rainfall Patterns and lastly, (h) the Environment - Coping with Disasters Due to Natural Hazards and Development of Physical Asset and Flow Accounts for Water Resources of the Philippines. Another plenary session on Driving Digital Transformation Using ArcGIS was also presented and by Geodata Systems Technologies. Poster papers on other Operations Research topics were also displayed and evaluated. All topics included Operations Research Models on how to solve existing problems in developing countries like the Philippines.

A panel discussion on the Data Privacy Act, a current issue in the Philippines nowadays, moderated by the former National Statistics Office administrator Dr. Carmelita N. Ericita, was discussed by experts in the field namely Mr. Kelvin K. Magtalas - Information Systems Analyst of the National Privacy Commission, Ms. Teresita P. Lisama - Deputy Director of the Knowledge Management Group of the Bangko Sentral ng Pilipinas, Mr. Danny C. Cheng - Data Protection Officer, De La Salle University and Director of Academic Relations, ISACA Manila Chapter and Dr. Ana Maria L. Tabunda, Treasurer and Research Director of Pulse Asia Research, Inc. They discussed the act in a very intellectual and comprehensive way that was easily understood by all the participants.

The fellowship dinner on the first day was highlighted by a mini concert rendered by the Loboc Children's Choir, a very successful choir known internationally.

During the closing program, the winner of the 2018 Student Best Paper Competition, Ms. April Joy Lorenzo of Pangasinan State University whose paper was entitled “Pattern Recognition of Suicidal Ideation” was awarded a cash prize of PhP25,000 (USD500) by the Chairperson of the Board of Judges, Dr. Joselito Magadia of UPSS. The PSAI President Dr. Lisa Grace Bersales gave tokens of appreciation in recognition to the following sponsors from government and private sectors: Philippine Statistics Authority (PSA), Geodata Systems Technologies, Inc., ABS-CBN, Philippine Statistical Research and Training Institute (PSRTI), Manila Electric Company (MERALCO), Pilipinas Teleserv, Philippine Social Science Council (PSSC), De La Salle University, Government Service Insurance System (GSIS), I-Metrics Asia-Pacific Corporation, Land Bank of the Philippines and University of the Philippines Statistical Center Research Foundation, for without them, the annual conference wouldn’t have been successful.

The synthesis of the entire conference was given by the co-author of this article, Prof. Milagros R. Baldemor. It was a short summary of 29 research papers presented orally, four poster presentations, four training workshops, three plenary sessions and one panel discussion on the Data Privacy Act.

As reflected in the evaluation of the activity, the conference was a successful one as to the organization, venue, speakers, food and other indicators. However, one of the recommendations, “There should be an organized tour to the beautiful places of Bohol” should be considered in future conferences, though they extended their stay in the beautiful island to visit Chocolate Hills, floating restaurant in Lomboc, the Baclayon church which was destroyed by an earthquake in the early 2000, and to see the tarsier, the world’s smallest primate which is found in the Philippines.

The annual conference was attended by more than 400 participants mostly from the local government units, regional line agencies and academes from all over the Philippines. It happens annually in different regions as voted upon by the participants and as approved by the national organizing committee led by Dr. Carmelita N. Ericita.

During the conference days, Prof. Baldemor emphasized the role of our OR community as a host of modern Data Mining, Applied Statistics and Analytics, and the hospitality of our EURO conference (such as EURO 2019; <https://www.euro2019dublin.com/>).



Milagros Baldemor [milagros\\_baldemor@yahoo.com.ph](mailto:milagros_baldemor@yahoo.com.ph)

Gerhard-Wilhelm Weber [gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

# Call for Papers

## Special Issue on “Optimization and Operational Research in Engineering” for the Journal “Frontiers of Engineering Management”

### Guest Editors

Gerhard-Wilhelm Weber  
Chair of Marketing and Economic Engineering,  
Poznan University of Technology, Poznan, Poland  
e-mail: gerhard.weber@put.poznan.pl

Jingyang Zhou  
Curtin University, Perth, Australia  
e-mail: j.zhou@curtin.edu.au

### Description

Frontiers of Engineering Management is a research journal sponsored by the Chinese Academy of Engineering, administered jointly by Tsinghua University and Huazhong University of Science and Technology, and published by Higher Education Press, China. The journal is international in its scope and mission. It is published quarterly in English in both print and online versions. Frontiers of Engineering Management provides a high-quality international platform for academic researchers, industry professionals and other constituent communities in the broad field of engineering management to impart and share the latest research results and knowledge in the form of research articles, reviews, letters and comments. Frontiers of Engineering Management strives to promote the advancement of the science of engineering management, the improvement of the practice of engineering management, and the preparation of researchers and practitioners to address contemporary and future challenges in engineering management. The topics covered by the journal include general, specialty and cross-disciplinary studies in engineering management, both theoretical and applied, and studies related to engineering management education worldwide.

### Aims and scope

Optimization and operational research deal with the applications of advanced mathematical and analytical methods for determining better solutions and decisions to problems. Their importance has been demonstrated in a great variety of applications spanning, e.g., construction, mining, transportation, energy, aerospace, agriculture, logistics and business management. In turn, new applications also lead to the development of new theory, novel techniques and approaches in optimization. The aim of this special issue is to collect high quality research papers, focusing on the trends and innovations of optimization and operational research on engineering applications. This special issue is devoted to solving practical engineering problems using applied mathematical methods with emphases on optimization and operational research. Mathematical modellings of engineering problems, e.g., civil and construction, transport and logis-

tics, industrial and manufacturing are welcome. Mathematical methods include, but not limited to, linear programming, nonlinear programming, integer programming, network programming, semi-definite programming, stochastic programming, dynamic programming, optimal control, and meta-heuristic optimization. Of great interests are solving real-world problems through novel mathematical modelling and novel applications. Papers employing existing approaches must demonstrate sufficient novelty in the solution of practical problems.

## **Submission details**

To submit a manuscript, please visit <https://cn.manuscriptcentral.com/fem> and under “Manuscript Type” select “Optimization and Operational Research in Engineering”. All manuscripts will be peer-reviewed in accordance with the established policies and procedures of the journal. Papers will be selected for publication following the outcome of the peer review process and subsequent decisions of the Guest Editors and the Editor-in-Chief.

## **Important Dates**

- Submission deadline: 31 December, 2018
- First decision notification: 31 March, 2019
- Submission of revised paper: 31 May, 2019
- Final decision notification: 31 August, 2019
- Expected publication date: 31 December, 2019 (to be determined by the journal editor)



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— Call for Papers —  
*Annals of Operations Research*  
Special Volume  
*Operations Research for Neuroscience II*

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After the positive and encouraging response by the scientific and wider community to the special volume *Operations Research for Neuroscience*, the journal **Annals of Operations Research (Springer)** now invites submissions of papers to a second special volume on the same subject, called **Operations Research for Neuroscience II**.

Neuroscience is a multidisciplinary science that is concerned with the study of the structure and functions of the nervous system. It comprises aspects of physiology, cellular and molecular biology, as well as behavioral and cognitive science. Recent technological and theoretical advances offer promising opportunities for better understanding of the nervous system at the quantitative level. New optogenetic, in vitro and in vivo multielectrode recording, neuroimaging, brain imaging, and other modern techniques provide high-quality data that can be used in elucidating the fundamental mechanisms of information processing in the nervous system.

The rapidly growing pool of experimental data has triggered the development of new mathematical models, which can provide new insights into the functioning of the nervous system at various scales, ranging from that of molecular biology to that of the organizational principles of behavior and cognition. Sophisticated analyses of intracellular signaling or dynamics in heterogeneous neural networks, conditional behavior or connections of brain regions in decision-making lead to theoretical problems, addressed by Operations Research.

Although, Operations Research is actively used in bottom-up approach: from experimental observation to consistent theory; it is also has wide overlapping with modern and rapidly developing formal theories, for example the Free-Energy principle, the Integrated Information theory and may others.

The special volume will cover a broad range of topics in the field of neuroscience, which use Operations Research approaches, methods and theories. Potential topics include, but are not limited to, the following areas and methodologies of *neuroscience*:

- intracellular signaling and regulation,
- synaptic plasticity,
- dynamics in heterogeneous neural networks,
- intelligent systems and control,
- perceptual, cognitive and behavioral functions,
- learning and memory,
- spatio-temporal network analysis,
- behavioral economics and finance,
- linguistics and cognition,
- combinatorial optimization,
- signal and information processing,

- neuroimaging and functional brain imaging processing,
- computational modelling and simulation,
- formal theoretical approaches: the Free-Energy principle, the Integrated Information, Bayesian inference, etc.

**The use of methods from modern *Operations Research* in *Neuroscience* is a prerequisite for any paper submitted to this special volume to enter the reviewing process.**

*Annals of Operations Research* is abstracted and indexed in the following databases: Science Citation Index, Science Citation Index Expanded (SciSearch), Journal Citation Reports/Science Edition, SCOPUS, INSPEC, Zentralblatt Math, Google Scholar, EBSCO, CSA, ProQuest, ABS Academic Journal Quality Guide, Academic OneFile, Academic Search, Computer Abstracts International Database, Computer Science Index, CSA Environmental Sciences, Current Contents/Engineering, Computing and Technology, DBLP, ECONIS, Expanded Academic, International Abstracts in Operations Research, Mathematical Reviews, OCLC, SCImago, STMA-Z, Summon by ProQuest.

**Guest Editors:** Erik Kropat, Ruben A. Tikidji-Hamburyan, Gerhard-Wilhelm Weber.

**Important Dates:** Submission deadline of full papers: December 1, 2018.

**Submission Details:** The format of manuscripts for the *Annals of Operations Research* as well as guidelines can be found on the web page of Springer, the publisher of the journal:

<http://www.springer.com/journal/10479/submission>.

Authors should submit a cover letter mentioning that the paper is for a special volume and a manuscript via the journal's online submission site:

<http://www.editorialmanager.com/anor>.

When prompted, please select the article type “**S.I.: OR in Neuroscience II**”.

All papers submitted for publication will be carefully refereed. In case of any question please contact by e-mail one of the following guest editors:

**Dr. Ruben A. Tikidji-Hamburyan**  
**Department of Cell Biology and Anatomy**  
**Health Sciences Center**  
**Louisiana State University**  
**New Orleans, Louisiana 70112, USA**  
**E-mail:** [rtikid@lsuhsc.edu](mailto:rtikid@lsuhsc.edu)

**Dr. Erik Kropat**  
**Department of Computer Science**  
**Universität der Bundeswehr München**  
**Werner-Heisenberg-Weg 39**  
**85577 Neubiberg, Germany**  
**E-mail:** [erik.kropat@gmx.de](mailto:erik.kropat@gmx.de)

**Prof. Dr. Gerhard-Wilhelm Weber**  
**Faculty of Engineering Management**  
**Chair of Marketing and Economic Engineering**  
**Poznan University of Technology**  
**ul. Strzelecka 11**  
**60-965 Poznan, Poland**  
**E-mail:** [gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

Call for Papers

**Special Issue of Optimization Methods and Software**

***“Advances of Optimization in  
Science, Economics, Engineering and Medicine”***

**at the occasion of**

**5th International Conference on**

***Computational and Experimental Science and Engineering***

**(ICCESEN 2018)**

Papers presented at, or related to the subjects of the *International Conference on Computational and Experimental Science and Engineering, ICCESEN 2018*, October 12-16, 2018, Kemer, Antalya, Turkey (<http://www.iccesen.org/>), will be considered for peer-reviewed publication in a special issue of the journal *Optimization Methods and Software (OMS)*: <http://www.tandfonline.com/goms>.

The quality and topics of the submissions should correspond to the high standards of publications in OMS and its Aims and Scope:

<http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=goms20>.

The deadline for submission is **March 15, 2019**.

The paper length should **not** exceed 25 journal pages.

Submissions should follow the journal's style and guidelines presented here:

<http://www.tandfonline.com/action/authorSubmission?journalCode=goms20&page=instructions>.

Manuscript submission must be made online via the journal's ScholarOne Manuscripts site

<http://mc.manuscriptcentral.com/goms>.

To specify the special issue, choose “**ICCESEN-2018**”.

*In case of any question, please contact by e-mail either the guest editor*

**Prof. Dr. Gerhard-Wilhelm Weber**

Faculty of Engineering Management,  
Chair of Marketing and Economic Engineering,  
Poznan University of Technology  
Ul. Strzelecka 11  
60-965 Poznan, Poland  
e-mail: [gerhard.weber@put.poznan.pl](mailto:gerhard.weber@put.poznan.pl)

*or, alternatively, OMS Editor-in-Chief: Prof. Dr. Oleg Burdakov: [oleg.burdakov@liu.se](mailto:oleg.burdakov@liu.se).*

# Operational Research for Development

## Analytics in a Start-Up Project for Refugees

The role of LiBerated Social Entrepreneur in Developing and Emerging Countries consists of a social entrepreneur who is using business metrics such as profit, revenue and stock exchanges, to sustain social impact in order to change the systems in the developing economies. I, *Berat Kjamili*, and “METU rock star”, as Berat calls him, *Prof. Dr. Gerhard-Wilhelm Weber*, studied the dynamics and differences between developing and developed countries to introduce a very novel approach to development, based on modern OR and economics. Commercial entrepreneurs generally are oriented to use business metrics like profit, revenues and increases in stock prices. Instead, here we have social entrepreneurs who are either non-profits or a blend with for-profit goals through generating a positive “return to society”; thus, there is a belief that one has to use rather different metrics. What we did is that we introduced a mid-way where a social entrepreneur uses business metrics to generate a positive return to society and community as a LiBerated Social Entrepreneur. The need and recognition for the mid-way is because in the developed countries non-profit social enterprises can find funding to run the business; however, in the developing economies, social entrepreneurs cannot find as many funds because social entrepreneurship ecosystem has been uncommon in the developing countries. Therefore, social businesses should be sustainable in order to spread the positive return in the developing economies. For the developed world, LiBerated Social Entrepreneur concept is also required, since the model is more sustainable than non-profit social enterprises. Imagine a social business was as successful as Apple, would for-profit aspect make a difference? No, the only difference would be a monopolistic positive return to the society. In order to “be Apple, Amazon, Google”, social business should be converted to real businesses, committed however.

The business model which was Berat’s thesis at Middle East Technical University and brought about Berat’s startup **QZenobia** is published as:  
B. Kjamili and G.-W. Weber, *The Role of LiBerated Social Entrepreneur in Developing Countries: A mid-way*, in Societal Complexity, Data Mining and Gaming; State-of-the-Art 2017, Greenhill & Waterfront, Europe: Amsterdam, The Netherlands; Guilford, UK North-America: Montreal, Canada, 2017. ISBN /EAN 978-90-77171-54-7.

There are 3 million registered and 2 million irregular refugees in Turkey. We strongly believe that Refugees could lead to an economic and social development.

QZenobia is a mobile application that runs as a “refugee hub”, based on “Refugee Big-Data Analytics”. With QZenobia, refugees can submit their data to the application via “questionnaire” and search for opportunities such as verified news, refugee portal, jobs and digital registrations in the host country. The application collects refugee data such as: who?, what?, where?, which skills are given?, which income are given?, and what are their market dynamics?, so that consulting projects with monthly updated data analytics became introduced into the host country’s market, and provided to the economy, given the refugees’ permissions.

We found out that 9% of refugees looking for a job knows C++ programming skills, wage

increase from 800 Turkish Lira, which was the case at the beginning of migration, increased even to 1400 Turkish Lira among refugees in the major cities such as Ankara, Istanbul and Izmir. Due to the financial conditions, refugee women’s participation in the labor force increased whereas, culturally, men are expected to bring home the money; this has now practiced (with consent) differently for women to help the family in migration. Last but not least, we have contributed a positive change to the over 1.5-million refugee community in Turkey with collected data analytics that we provided.

I, Berat Kjamili, started this business because I am a migrant from Makedonia myself. The Syrian refugee community consists of migrants under temporary protection in Turkey and they cannot be granted refugee status because of the fact that Turkey has signed the 1951 Refugee Convention (UNHCR, 2018). As a result of careful preparations, our concept of Liberated Entrepreneur led by me, Berat Kjamili, together with QZenobia, won the Global Student Entrepreneur Awards Turkey - Entrepreneurs’ Organization. This then advanced to Toronto, Canada, the Global finals, as EO Turkey representative. Then it advanced also to the MIT Enterprise Forum “Innovate for Refugees” program finals in Amman, Jordan. In addition, we became selected as Top 100 and award-winning startup by Ankara Development Agency, Top 50 by Collective Global Accelerator London 2018 program among 4600 startups, as well as Top 50 by Startup Istanbul 2017 among 21.000 startups globally. As a result of the Liberated Business Plan, I, Berat Kjamili, my team members Ali Alp Üstun, Melda Akalin and Kerem Ayyildiz, have been honored to become the first Liberated Social Entrepreneurs which we became as the outcome of the business model.

We are very honored to be supported and to have Advisory Board members: Gerhard-Wilhelm Weber, professor, Poznan University of Technology, affiliated at Middle East Technical University, Sule Akkoyunlu, PhD Oxford University and Academic, Middle East Technical University, Mert Yildiz, LSE, economic advisor, Foresight Consultancy, Omer Faruk Akarca, Galata Business Angels, to take our startup to a next level for achieving highest standards in serving our peoples in the Middle East and on earth.

**Note:** *EURO Working Group on Operational Research for Development*, founded in the year of 2006 during the EURO conference in Reykjavik, is a “daughter” of EURO WG EUROPT.

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Berat Kjamili  
Department of Economics  
Middle East Technical University, Turkey  
Founder of QZenobia Refugee Big Data Analytics Startup  
[beratkjamili@gmail.com](mailto:beratkjamili@gmail.com)

Gerhard-Wilhelm Weber  
Faculty of Engineering Management  
Chair of Marketing and Economic Engineering  
Poznan University of Technology, Poland  
Institute of Applied Mathematics, METU, Ankara, Turkey  
[gerhard-wilhelm.weber@put.poznan.pl](mailto:gerhard-wilhelm.weber@put.poznan.pl)



# Contacts

EUROPT: <https://www.euro-online.org/websites/continuous-optimization/>

People wishing to submit announcements to the EUROPT mailing list should address their message to [europa-announce@lists.strath.ac.uk](mailto:europa-announce@lists.strath.ac.uk). 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:

- Paula Alexandra Amaral, [paca@fct.unl.pt](mailto:paca@fct.unl.pt)
- Giancarlo Bigi, [giancarlo.bigi@unipi.it](mailto:giancarlo.bigi@unipi.it)
- Sonia Cafieri, [sonia.cafieri@enac.fr](mailto:sonia.cafieri@enac.fr)
- Andreas Grothey, [A.Grothey@ed.ac.uk](mailto:A.Grothey@ed.ac.uk)
- Dmitri Kvasov, [kvadim@dimes.unical.it](mailto:kvadim@dimes.unical.it)
- Laura Palagi, [laura.palagi@uniroma1.it](mailto:laura.palagi@uniroma1.it)
- Christiane Tammer, [christiane.tammer@mathematik.uni-halle.de](mailto:christiane.tammer@mathematik.uni-halle.de)

## Editor's notes

Dear members of EUROPT, dear readers,

I have the pleasure to welcome you to this content-rich Newsletter.

The new EUROPT Managing Board has recently been elected for the term July 2018 - June 2020. The present Newsletter issue introduces the new Managing Board. I am really honored to still be part of this board and I would like to join our new Chair in welcoming the new members of the board, while thanking deeply the colleagues who leave the board and contributed to the success of our working group.

We are proud to report on the last EUROPT Workshop that was held in Almeria last July, and to announce the next Workshop, to be held in Glasgow. This Newsletter is also rich in reports on the numerous events of interest for the EUROPT community which were held during last months.

I thank all contributors to this Newsletter, while encouraging all the readers to continue sharing informations and announcements that are valuable for our community.

The Newsletter Editor

Sonia Cafieri

ENAC, University of Toulouse, France

[sonia.cafieri@enac.fr](mailto:sonia.cafieri@enac.fr)