



Newsletter 49 of EUROPT

EUROPT - The Continuous Optimization Working Group of EURO

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

June 2022

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Words from the Chair

Dear Friends,

On behalf of the EUROPT Managing Board welcome to the 49th EUROPT Newsletter. I hope you and your families are all healthy. Summer is approaching fast in a reasonably safe fashion as far as the pandemic is concerned, so we are looking forward to our community meeting live again. Indeed, our annual workshop together with a summer school are planned as in-presence only events. They will take place in Lisbon, respectively on 29-30 July and 1-2 August, at the NOVA School of Science and Technology, organised by Paula Amaral and her group. I am very pleased that your response to these activities has been very enthusiastic. Updated information on both events can be found in the Newsletter. In particular, I am very happy to announce that Marc Teboulle and Oliver Stein agreed to act as instructors for the school. My heartfelt thanks to both for taking on this duty.

Recently, a selection committee, including most EUROPT Fellows and Past Chairs beyond the current Managing Board, elected the new EUROPT Fellow, who will deliver the Fellowship Lecture at our workshop in Lisbon. If you missed the announcement, browse the Newsletter to find out which outstanding researcher has been awarded! Let me thank all who proposed so many outstanding candidates and the selection committee for their valuable service to our community.

Beyond our own activities, announcements of some further events are included in the Newsletter as well. In order to get other news in real-time you can freely join our mailing-list by sending a message to europt@di.unipi.it.

Looking forward to this exciting Summer, we hope to meet many of you in Lisbon.

Enjoy reading the Newsletter!

Giancarlo Bigi, EUROPT Chair
Università di Pisa, Italy
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EUROPT 2022 Fellow

EUROPT honours outstanding researchers in continuous optimization by awarding annually the EUROPT Fellowship. It is a great pleasure for the EUROPT Managing Board to announce that **Oliver Stein** (Karlsruher Institut für Technologie) has been elected EUROPT Fellow 2022. Oliver Stein is recognized for his outstanding scientific contributions to continuous optimization. He has made remarkable contributions to semi-infinite optimization, generalized Nash equilibria and bilevel optimization, mixed integer programming. He is associate editor for many valuable journals and editor in chief of Mathematical Methods of Operations Research. He served on the EUROPT Managing Board for 4 years and organised its 7th annual workshop.

Professor Oliver Stein will present the EUROPT Fellowship Lecture as a plenary talk at our annual workshop, which will be held on 29-30 July at the NOVA School of Science and Technology, Universidade Nova de Lisboa.

The selection committee included EUROPT Fellows and Past Chairs beyond the Managing Board:

- Miguel Anjos (Fellow - MB)
- Paula Amaral (MB)
- Adil Bagirov (Fellow)
- Giancarlo Bigi (MB Chair)
- Immanuel Bomze (Fellow)
- Sonia Cafieri (MB)
- Manlio Gaudioso (Fellow)
- Jacek Gondzio (Fellow)
- Tibor Illés (MB Honorary Chair)
- Florian Jarre (MB Past Chair)
- Joaquim Judice (Fellow)
- Dmitri Kvasov (MB)
- Monique Laurent (Fellow)
- Marco Locatelli (Fellow)
- Marco Antonio López Cerdá (MB Past Chair)
- Juan Enrique Martínez-Legaz
- Kaisa Miettinen (MB Past Chair)
- Yurii Nesterov (Fellow)
- Laura Palagi (MB)
- Panos Pardalos (Fellow)
- János D. Pintér (MB Past Chair)
- Cornelis Roos (Fellow)
- Yaroslav Sergeyev (Fellow)
- Christiane Tammer (MB)
- Tamas Terlaky (MB Honorary Chair)
- Gerhard Wilhelm Weber (MB Honorary Chair)
- Julius Zilinskas (MB Past Chair)

Our warmest congratulations to the new EUROPT Fellow!

EUROPT Workshop and School

19th EUROPT Workshop on Advances in Continuous Optimization
July 29-30, 2022, Lisbon, Portugal

<https://sites.fct.unl.pt/europt2022>



The EUROPT 2022 Workshop on Advances in Continuous Optimization, the annual event of the EUROPT Continuous Optimization working group of EURO, will be held on July 29-30, 2022, hosted at the NOVA School of Science and Technology of the Universidade Nova de Lisboa, Portugal.

The Workshop will bring together researchers from Europe and around the globe for stimulating discussions on the latest developments on all aspects of continuous optimization. We aim at having the community meet live again, so the Workshop is planned in-person only with no remote participation.

We are preparing a very rich program. All the themes of Continuous Optimization in the broad sense will be covered. The program includes 12 special streams that will include about 30 sessions, as well as 4 plenary lectures:

Alper Yildirim (School of Mathematics, The University of Edinburgh)
Dolores Romero Morales (Copenhagen Business School)
Marc Teboulle (School of Mathematical Sciences, Tel Aviv University)
Oliver Stein (Karlsruher Institut für Technologie) – EUROPT Fellow Lecture

Please find more information about the Workshop on the website:
<https://sites.fct.unl.pt/europt2022>

We are looking forward to welcoming you in Lisbon!

EUROPT Summer School 2022

<http://www.euro-online.org/websites/continuous-optimization/europtschool22/>

The EUROPT Summer School 2022 will take place on 1-2 August at the NOVA School of Science and Technology of the Universidade Nova de Lisboa, Portugal, following the 19th EUROPT Workshop on Advances in Continuous Optimization.

The school is planned to be in-person only, no live streaming will be provided. There will be two courses focusing on algorithms for optima and equilibria, specifically on

1. **First order optimization methods**
delivered by **Marc Teboulle**, Tel Aviv University
2. **Equilibrium selection**
delivered by **Oliver Stein**, Karlsruher Institut für Technologie,
EUROPT Fellow 2022

Each day includes 6 hours of lectures plus coffee breaks.

Attendance is free of charge but with a mandatory registration. Lectures are particularly suited for PhD students and young researchers to provide them with the chance of attending two high level courses on continuous optimization, but the school is open to everyone wishing to participate.

Registration (filling an online form) will be possible until 15 June, 2022.

Forthcoming events



<http://www.airoconference.it/ods2022>

The International Conference on Optimization and Decision Science is organized by the Global Optimization Laboratory In Florence, with AIRO, the Italian Operations Research Society, and DINFO (Dept. of Information Engineering, Università degli Studi di Firenze).

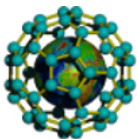
The Conference will be held from August 30th to September 2nd, 2022 in Florence (Italy).

The Conference theme is open in the fields of operations research, optimization, problem solving and decision making, and their applications. A special focus will be on the theme

Operations Research: inclusion and equity

The Conference is being organized fully in person. Up to now, more than 230 participants registered, from many different countries. As this number is higher than our expectations, we might possibly need to close registration in advance.

For info please consult the ODS2022 web site: <http://www.airoconference.it/ods2022>



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INGEGNERIA
DELL'INFORMAZIONE

27-28
OCTOBER
2022

ICO 2022 Hybrid Conference

5TH INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTING & OPTIMIZATION 2022

SCOPE

Innovative global optimization approaches have attracted many research scientists, decision makers, managers, executives, engineers, academicians, officers, policy makers and practicing researchers in recent years as powerful intelligent computational techniques for solving many complex real-world application problems.

The International Conference on Intelligent Computing and Optimization (ICO'2022) highlights the latest research innovations and applications of algorithms designed for optimization applications within the fields of Science, Computer Science, Engineering, Information Technology, Management, Finance, Business and Economics. Focusing on a variety of methods and systems as well as practical examples, this conference is a significant resource for post graduate-level students, decision makers, and researchers in both public and private sectors who are seeking research-based methods for modeling uncertain and unpredictable real-world problems.

HIGHLIGHTS

All accepted and reviewed papers will be published by Springer and made available through Springer-Link Digital Library, one of the world's largest scientific libraries.

PAPER SUBMISSION

The submission Web page for ICO 2022 is

<https://easychair.org/conferences/?conf=ico2022>

PUBLICATION

The accepted and reviewed papers of ICO 2022 will be published in the SPRINGER series "Lecture Notes in Networks and Systems". The proceedings are submitted for inclusion to the leading indexing services: SCOPUS, DBLP, Google Scholar, Thomson Scientific ISI Proceedings (CPCI), Elsevier Engineering Index, CrossRef, Web of Science, and Springer link.

IMPORTANT DATES

- ✓ Workshops/Tutorial proposals
10 June 2022
- ✓ Full paper/Poster/Demos
24 July 2022
- ✓ Acceptance Notification
15 August 2022
- ✓ Camera ready deadline
10 September 2022

KEYNOTE SPEAKERS



**Professor
Morikazu Nakamura**
University of the Ryukyus,
Okinawa Japan



Professor Ivan Matveev
Federal Research Center
"Computer Science and Control"
of Russian Academy of Sciences
(FRC CSC RAS)



**Professor
Elmer P. Dadios**
De La Salle University,
Manila, Philippines



**Professor Mohammad
Shamsul Arefin**
Department of CSE, CUET,
Bangladesh; Vice-Chair
(Activity), IEEE CS BDC

CONFERENCE TOPICS

Topics to be discussed in this conference include (but are not limited to) the following:



Intelligent Computing

Artificial Intelligence, Quantum Computing, Deep Neural Networks, Self Organizing, Fuzzy Logic, Membrane Computing, Evolutionary Computation, Learning theory, Probabilistic methods, Image processing computer vision, Speech recognition, Big Data Analytics, Evolutionary Algorithm, Randomness Monte Carlo Methods, Algorithmic Probability, Chaos Theory, Cryptography, Game Theory, Information Theory, Pattern Recognition, Natural Computing, Evolutionary Robotics Knowledge-based System, Machine Learning, Unsupervised Learning, Computational Finance, Computational Economics, DNA Computing, Deep Learning, Wavelets.



Optimization

Ant Colony Optimization, Artificial Bee Colony, Artificial Immune Systems, Artificial Neural Networks, Automatic Computing, Bacterial Foraging, Biological Computing, Chaos Optimization, Cloud Computing, Combinatorial Optimization, Computational Intelligence, Continuous Optimization, Cultural Algorithms, Differential Evolution, Direct Search, Evolutionary Computing, Fuzzy Optimization, Genetic Algorithms, Granular Computing, Hybrid Algorithms, Local and Global Search, Memetic Algorithms, Meta-heuristic Methods, Particle Swarm Optimization, Pattern Search, Simulated Annealing, Simulation and Modeling, Soft Computing Techniques, Support Vector Machines, Swarm Intelligence, Tabu Search, Variable Neighborhood Search, Quasi-Newton Methods, Monkey algorithm, Mathematical programming.



Applications

IoT's, Adaptive Response, Microwave Field, Electric Skin Activity, Flood Management, Leg Mating Unit, Animal Husbandry, Reinforcement Learning, Solar Energy, Anaerobic Treatment Radiation, Elastic Damping Mechanism, Optimal Power Supply, Smart Home, Traveling Salesman Problem, Clustering Algorithms, Neural Machine Translation, Handwritten Recognition, Web Based Instruction, Load & Pollution Forecasting, SSD-Mobile Net, Financial & Debt Ratios, Truth Discovery, Learning Analytics, Face Recognition, Mobile Cloud Gaming, Disposing Waste, Smart Audit, Drone, Menstrual Cycle, Pulse Wave, Traffic Data, Supply Chain, Electricity Prices, Health Economics, Photocells, Knight's Tour Problem, Electro-activated Air, Vehicular communications, Elastic Damping Mechanism, Energy Saving, Autonomous Vehicle, Photovoltaic, Grain Drying, Loose Material, Social Network, Monitoring System, Electroencephalogram, Block-Chain, Molecular Dynamics, Tree Hierarchies, Hub Location, Path Relinking, Interoperability, Trend Detection, Packing problem, Android, Smart Cities, Autonomous Vehicles.

ZOOM WEBINAR & G HUA HIN RESORT & MALL, HUA HIN, THAILAND

For more information about ICO'2022, please visit

<https://www.icico.info/> <https://link.springer.com/book/10.1007/978-3-030-93247-3>
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Special Issues

Special Issue of Mathematics: Recent advances in fuzzy set theory and their application in sustainable decision making

In 2018, the Paris agreement set the goal for countries around the world to achieve net-zero emissions by 2050. Also, the recent pandemic knocked down the economic and social balancing all over the world. Therefore, sustainability has become the most concerning factor throughout the globe. On the other hand, decision-making is one of the most indispensable problems in our daily life. Consequently, there is a dire need to develop an efficient decision-making model with sustainability implementation for supporting the governments in getting over the sustainable crisis in various sectors such as logistic, hospitality, tourism, business, construction, etc.

Due to some uncontrollable and inevitable factors, the information regarding the decision system is suffered from the impreciseness. Accordingly, several studies were put forward in order to handle the uncertainty in the decision system. Fuzzy set, which was developed by L. A. Zadeh in 1965, has been widely applied in various decision-making fields. However, the COVID-19 pandemic has increased the ambiguousness in the decision regarding data. As a result, traditional uncertainties are inadequate to solve the issues arisen in the complex decision-making problems.

Hence, for this Special Issue, we are pleased to invite you to submit papers regarding the advancement and extension of fuzzy set theory that can handle uncertain, ambiguous and noisy information in various sustainable decision-making problems. Original research articles and reviews are welcome. Research areas may include, but are not limited to, the following:

- Continuous and discrete fuzzy set theory in decision-making.
- Sustainable transport management.
- Sustainable hospitality and tourism management.
- Advanced multi-criteria decision making.
- Advanced aggregation operators and their application in decision-making.
- Consensus model in sustainable decision-making.
- Sustainable waste management.
- Sustainable water resource management.
- Extended fuzzy sets in decision-making.

Guest Editors:

Prof. Dr. Sankar Kumar Roy, sankroy2006@gmail.com, roysank@mail.vidyasagar.ac.in
Vidyasagar University, Midnapore, West Bengal, India

Prof. Dr. José Luis Verdegay, verdegay@decsai.ugr.es
Universidad de Granada, Granada, Spain

Prof. Dr. Armin Fügenschuh, fuegenschuh@b-tu.de
Brandenburg Technical University Cottbus-Senftenberg, Germany

Prof. Dr. Gerhard-Wilhelm Weber, gerhard.weber@put.poznan.pl
Poznan University of Technology, Poznan, Poland

Deadline for manuscript submissions: **31 August 2022.**

Contacts

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

People wishing to submit an announcement to the EUROPT mailing list should address their message to europa@di.unipi.it. 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
- Miguel Anjos, Miguel.F.Anjos@ed.ac.uk
- Giancarlo Bigi (Chair), giancarlo.bigi@unipi.it
- Sonia Cafieri, sonia.cafieri@enac.fr
- Dmitri Kvasov, kvadim@dimes.unical.it
- Laura Palagi, laura.palagi@uniroma1.it
- Christiane Tammer, christiane.tammer@mathematik.uni-halle.de

Editor's notes

Dear members of EUROPT, dear readers,

Our EUROPT community always remained active even during the COVID-19 pandemic, coming up with valuable initiatives and experimenting the first EUROPT virtual workshop. We are all looking forward to meeting again live, and this coming Summer we will have great opportunities to do so. Please find in this Newsletter some updated information on our annual workshop and our second summer school which are both planned as in-presence only events. They will be held in Lisbon at the NOVA School of Science and Technology, respectively on 29-30 July and 1-2 August. A plenary lecture will be given by Oliver Stein, who has been awarded EUROPT Fellow 2022, as we are honored to announce in the present Newsletter.

Please also find up-to-date information on other outstanding events for our community that are to be held this Summer. Please do not miss these opportunities of meeting and exchange!

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

The Newsletter Editor

Sonia Cafieri

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