



Contents lists available at ScienceDirect

EURO Journal on Computational Optimization

journal homepage: www.elsevier.com/locate/ejco



Twenty years of EUROPT, the EURO working group on Continuous Optimization



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ARTICLE INFO

Keywords:

Continuous Optimization

EUROPT

Operational Research

EURO working group

ABSTRACT

EUROPT, the Continuous Optimization working group of EURO, celebrated its 20 years of activity in 2020. We trace the history of this working group by presenting the major milestones that have led to its current structure and organization and its major trademarks, such as the annual EUROPT workshop and the EUROPT Fellow recognition.

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1. Introduction

EUROPT is the Continuous Optimization working group (WG) of the Association of European Operational Research Societies (EURO). Founded in 2000, EUROPT has become over its more than 20 years of activity a leading working group in promoting and advancing Continuous Optimization. In this article, we trace the main milestones which have led EUROPT to its current structure and organization, as well as to the definition

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of what is currently considered as its main trademark. The establishment and the early history of EUROPT are detailed in [1] by two founders of the working group, Professor Tamás Terlaky and Professor Tibor Illés. This article focuses on later developments and on the growth of EUROPT.

The very rich activities of the EUROPT working group, in addition to holding the annual EUROPT Workshop and participating in the EURO and IFORS (International Federation of Operational Research Societies) conferences, include the election of EUROPT Fellows, active cooperation with other EURO WGs and Operational Research (OR) societies, support of and participation in summer/winter schools and other meetings on related topics, as well as publication of books and editorial work for scientific journals.

The authors of this article, who are members of EUROPT and at different times have participated actively in its life, as members of its Managing Board and organizers of some of its activities, present here an overview of the main activities and achievements of this working group. All of these have been possible thanks to the active participation of passionate researchers who have contributed to make Continuous Optimization visible in Europe and worldwide.

The article is structured as follows. After briefly recalling the main goals of EUROPT in Section 2, we overview the main milestones of the EUROPT's history in Section 3. We then present the organization and management of EUROPT in Section 4. Section 5 is dedicated to distinguished EUROPT members. Section 6 highlights conference-related activities of EUROPT with a particular attention to the annual EUROPT Workshop. Section 7 presents the examples of collaboration with other societies and working groups on Optimization and OR. Sections 8 and 9 focus respectively on EUROPT's dissemination channels, the editorial work, and publications. Finally, Section 10 is about the celebration of the 10th and 20th anniversaries of the working group. A few words of conclusion are given in Section 11.

2. Status and goals of EUROPT

We first briefly recall in this section the status and main goals of EUROPT. EUROPT is a working group acting under the umbrella of EURO, which structures its activities through the EURO WGs. EURO working groups are the organizational frameworks provided to researchers and practitioners interested in specific areas of OR.

As stated on its website [2], EUROPT aims at promoting and facilitating communication links among European (and other) researchers working in the area of Continuous Optimization. In particular, the EUROPT goals include:

- disseminating state-of-the-art knowledge and supporting research in Continuous Optimization,
- contributing to the education of young researchers and students (e.g. organizing Summer schools, advertising PhD programs, etc.),

- facilitating the gathering of the Continuous Optimization community in Europe under the umbrella of EURO,
- building and maintaining links with special interest groups inside and outside EURO,
- supporting the foundation of new EURO working groups,
- supporting preparation, refereeing and editing of publications,
- establishing regular information channels and regular meetings,
- building links to users of Continuous Optimization methodology,
- involving industrial organizations and users of Optimization in the activities listed above,
- promoting interdisciplinary research with colleagues from science, engineering and economy, with Continuous Optimization being a key technology.

We provide more details about the main activities listed above in Sections 6 to 9.

3. A brief history, after the first years up to maturity

EUROPT was founded in 2000, during the Second Workshop on Interior Point Methods in Budapest, Hungary, July 14-15, 2000. The history of its foundation and of the first five years of activity can be found in [1].

Early in its history, the group was led by its *Coordinators*. Later, the coordinators were renamed *Chairs*.

The year 2006 was a milestone as, beyond its rich scientific activities, EUROPT set up a new management structure in the form of the *Managing Board*, and introduced the EUROPT Fellowship program to recognize outstanding researchers in Continuous Optimization. The Managing Board is established on the basis of elections involving all the members of the WG, and serves a two-years term. The EUROPT Fellowship is awarded annually. More insight on these two characterizing elements of EUROPT is provided in Section 4.

EUROPT Workshops have been held almost every year since 2000, becoming one of the main events of the working group, bringing together researchers from Europe and around the world, and allowing them to share results and discuss their advances in Continuous Optimization. The workshop planned for 2020 was postponed to 2021 because of the worldwide pandemic. Since 2006, the name of the EUROPT workshop is “EUROPT Workshop on Advances in Continuous Optimization”. Traditionally the EUROPT Workshops are held in European countries. The only exceptions until now were the workshops of 2011 and of 2017 that were held in Ballarat (Australia) and in Montréal (Canada), both times as associated events of IFORS conferences. More insight on this fundamental activity of the working group is provided in Section 6.

The years 2010 and 2020-2021 were key years in the history of EUROPT, as during these years the working group celebrated its first jubilees, respectively the 10th and the 20th anniversaries. More on these celebrations is reported in Section 10.

Recent years were marked by the COVID-19 pandemic situation, which affected the scientific community too. This led the EUROPT working group to adapt to the special circumstances and for the first time hold its annual workshop in a virtual format in 2021. The success of this event showed once again the maturity of the group and its ability to adapt and project itself into the future.

4. Organization and managing of EUROPT

The EUROPT community has grown over the years, and the number of its members has been constantly updated. It generally followed an increasing trend and for some periods has reached 1200 members.

The activities of EUROPT are coordinated by the Managing Board, which benefits also from the support and advice of the Past and Honorary Chairs and of the EUROPT Fellows. This is presented in the following in more details.

EUROPT Managing Board. At the beginning of its history, from 2000 to 2006, EUROPT was led by its Coordinators. Later, the coordinators were renamed Chairs. The Managing Board (MB) was introduced in 2006, to better coordinate the activities of the growing group. The MB consists of six or seven members (the current number is seven) and is elected by an anonymous electronic voting procedure in which all EUROPT members are invited to participate. The Chair, chosen among the elected members, leads the board, coordinating the activities of the MB and representing EUROPT in the framework of activities carried out by EURO and other related societies. The work of the Chair is supported by the other MB members, who share some responsibilities within the group. Typical responsibilities include that of Newsletter Editor and Treasurer (since the establishment of the MB) and of Website Editor (since 2010). Other roles, like Secretary and/or Vice Chair, existed in past MBs. The MB serves for a term of two years.

EUROPT chairs. Over the more than 20 years of EUROPT's history, nine outstanding EUROPT members served as its Coordinators/Chairs. The two coordinators of EUROPT at the beginning of its history were Tamás Terlaky (Coordinator) and Tibor Illés (Vice-coordinator), from 2000 to 2003. In 2003, Florian Jarre became the Coordinator and Gerhard-Wilhelm Weber the Vice-coordinator. In 2006, Coordinators started to be named Chairs instead. The first EUROPT Chair was Gerhard-Wilhelm Weber, while Florian Jarre became the Past Chair. The next EUROPT Chair was Marco Antonio López Cerdá (2008-2010), followed by Kaisa Miettinen (2010-2012), János D. Pintér (2012-2014), Julius Žilinskas (2014-2018), and Giancarlo Bigi who is the EUROPT Chair since 2019. All past chairs and coordinators continue to participate actively in the life of EUROPT, and their opinions and recommendations are always taken into account.

Tamás Terlaky and Tibor Illés became the EUROPT Honorary Coordinators in 2003, and Gerhard-Wilhelm Weber was awarded the title of Honorary Chair of EUROPT in 2010.

Membership. Any researcher who is interested to join EUROPT is welcome. Membership is free of charge, and to join this WG it is sufficient to proceed to the online registration through the EUROPT website, following the link in [3]. All interested people can subscribe to the mailing list and receive updated information about the EUROPT news, events, and activities.

5. Distinguished EUROPT members

We recall in the following the main awards and recognitions received by EUROPT members, with a focus on the EUROPT Fellow award which, since its introduction in 2006, recognizes outstanding contributions to the field of Continuous Optimization by the members of the working group.

EUROPT Fellows. In 2006, EUROPT introduced the award and title of EUROPT Fellow. Alexander Rubinov became our first year's Fellow. Since that time, every year, EUROPT honors outstanding researchers in Continuous Optimization by recognizing them with the EUROPT Fellow Award. The award is presented to the recognized researcher annually, at the EUROPT Workshop. By tradition, the Fellow delivers the EUROPT Fellow Lecture as a plenary talk at the workshop.

The nomination of candidates and the constitution of the selection committee follow the rules that are publicly available on [4]. Except the MB Chair, each EUROPT member is eligible to nominate candidates for the Fellowship. Members of the EUROPT Managing Board, previous EUROPT Fellows as well as the EUROPT Honorary Chairs are not eligible to be nominated. Self-nominations are not allowed.

To be selected as a EUROPT Fellow, a candidate must meet one or both of the following criteria: outstanding scientific contributions to Continuous Optimization, such as original theoretical results, innovative applications, and/or successful software development; outstanding administrative contributions to the Continuous Optimization community, in particular to EUROPT, such as the organization of conferences, special issues, and the participation in editorial boards of international scientific journals.

The selection committee initially was the EUROPT Managing Board. Since 2019 (at the initiative of Giancarlo Bigi who was serving as Chair of the MB), the selection committee is formed by the EUROPT MB members, the EUROPT Fellows, the past MB Chairs and the Honorary Chairs. Nominating members and nominees cannot participate in the selection committee.

The outstanding researchers who received the prestigious EUROPT Fellow recognition are: Alexander Rubinov (2006), Georg Still (2007), Cornelis (Kees) Roos (2008), Adil Bagirov (2009), Yurii Nesterov (2010), Juan Enrique Martínez-Legaz (2011), Joaquim João Júdice (2012). After a break in 2013, this tradition was continued with Immanuel Bomze (2014), Panos Pardalos (2015), Yaroslav D. Sergeev (2016), Miguel F. Anjos (2017), Marco Locatelli (2018), Jacek Gondzio (2019), Manlio Gaudioso (2020), and the first female EUROPT Fellow Monique Laurent (2021). The most recent Fellow is Oliver Stein who was awarded during the 19th EUROPT Workshop in July 2022.

EURO and IFORS awards for EUROPT members. All along EUROPT's history, many of its members have received important awards and recognitions, not only from EUROPT itself, but also from EURO, IFORS and other institutions.

Among the EURO Gold Medal Laureates, we can mention some scholars involved in the activities of EUROPT for a long time, like András Prekopa (2003) and Boris Polyak (2012); Panos Pardalos (2013) and Yuri Nesterov (2016), who were also EUROPT Fellows respectively in 2015 and 2010; Aharon Ben-Tal (2007), who was one of the two lecturers of the EUROPT Summer School organized in 2021; and Martine Labbé (2019), who was plenary speaker at the EUROPT Workshop in 2021.

EUROPT members are also regularly awarded other EURO distinctions, including EURO Distinguished Service Award, EURO Excellence in Practice Award, and EURO Doctoral Dissertation Award. Recognition of their outstanding work in Continuous Optimization is also confirmed by regular invitations for EUROPT members to be plenary or keynote speakers at EURO conferences.

In 2021, the contribution to international operational research and its communities of the EUROPT Honorary Chairs Tamás Terlaky and Gerhard-Wilhelm Weber was recognized with the *IFORS Fellow* Award.

6. EUROPT Workshops and conference-related activities

We present in this section the main conference-related activities of EUROPT, with a special focus on the EUROPT Workshop, which represents one of the main trademarks of our working group.

EUROPT Workshops. EUROPT was founded during a Workshop in Budapest in 2000, and this meeting is considered to be the first EUROPT Workshop. Organizing and participating in EUROPT Workshops has since become an established tradition of the EUROPT community and one of the major events in the European mathematical optimization community. An EUROPT Workshop has been held every year since 2000, with the exception of 2002, 2005, 2008 and 2020 (this last one being postponed to 2021 because of the COVID-19 pandemic). Traditionally, it is organized in a different European city, near in time and location to the EURO-k conference of the same year; a few rare exceptions are two workshop editions organized outside Europe, as a consequence of coordination with IFORS conferences instead. Since 2006, the title of the Workshop is "EUROPT Workshop on Advances in Continuous Optimization".

The Managing Board usually selects the chairs of each year's workshop among the members of EUROPT who represent the country where the conference is held. The strong involvement of the chairs and of the members of the Program and Organizing Committees is a key element of the conference's success. Workshops often turn into unforgettable events, where an intensive scientific program is combined with an enjoyable social program. For example, the welcome reception during the workshop in Florence was held in the legendary Uffizi Gallery, and the dinner during the workshop in Remagen was held aboard a pleasant boat that swept the participants along the Rhine. Even during

the virtual workshop held in Toulouse, the participants got together for several virtual social events. All this contributes to the opportunity for the participants not only to share and discuss their scientific achievements, start or pursue joint research, but also to get to know each other better and have a good time together.

To date, eighteen EUROPT Workshops have been held, with members of the EUROPT community serving as conference chairs and organizers (in the following, PC and OC are shorthands for the Program and the Organizing Committee respectively; “Chair” alone indicates that the same person served in both roles of PC and OC chair):

- 2000, July 14-15, Budapest, Hungary.
PC Chair: Tamás Terlaky, OC Chair: Tibor Illés.
- 2001, July 12-13, Rotterdam, The Netherlands.
Chairs: Jan Brinkhuis, Hans Frenk, Georg Still, and Gerhard-Wilhelm Weber.
- 2003, July 4-5, Istanbul, Turkey.
Chairs: Bülent Karasözen and Gerhard-Wilhelm Weber.
- 2004, July 2-3, Rhodes, Greece.
Chairs: Bülent Karasözen and Gerhard-Wilhelm Weber.
- 2006, June 30 - July 1, Reykjavik, Iceland.
Chairs: Páll Jensson and Bjarni Kristjansson.
- 2007, July 4-7, Prague, Czech Republic.
Chairs: Oleg Burdakov, Florian Jarre, and Karel Zimmermann.
PC Chair: Gerhard-Wilhelm Weber. OC Chair: Marco A. López Cerdá and Martin Gavalec.
- 2009, July 3-4, Remagen, Germany.
PC Chair: Marco A. López Cerdá. OC Chairs: Oliver Stein and Mirjam Dür.
- 2010, July 9-10, Aveiro, Portugal.
PC Chair: Marco A. López Cerdá. OC Chairs: Domingos M. Cardoso and Tatiana Tchemisova.
- 2011, July 8-9, Ballarat, Australia.
PC Chair: Adil Bagirov. OC Chairs: Adil Bagirov and John Yearwood.
- 2012, July 5-7, Šiauliai, Lithuania.
PC Chairs: Mirjam Dür and Julius Žilinskas. OC Chairs: Donatas Jurgaitis, Vaida Bartkutė-Norkūnienė, and Sigita Turskienė.
- 2013, June 26-28, Florence, Italy.
Chairs: Laura Palagi and Fabio Schoen.
- 2014, July 10-12, Perpignan, France.
Chairs: Didier Aussel and Jean-Noël Corvellac. PC Chair: Juan Enrique Martínez Legaz.
- 2015, July 8-10, Edinburgh, United Kingdom.
PC Chair: Jacek Gondzio. OC Chair: Julian Hall.
- 2016, July 1-2, Warsaw, Poland.
PC Chair: Włodzimierz Ogryczak. OC Chair: Andrzej Stachurski.



Fig. 1. EUROPT Workshops (clockwise): Rhodes 2004, Glasgow 2019, and Montréal 2017.

- 2017, July 12-14, Montréal, Canada.
PC Chair: Miguel F. Anjos. OC Chair: Sébastien Le Digabel.
- 2018, July 12-13, Almeria, Spain.
PC Chair: Emilio Carrizosa. OC Chairs: Pilar Martínez Ortigosa and Leocadio González Casado.
- 2019, June 28-29, Glasgow, United Kingdom.
PC Chair: Edmondo Minisci. OC Chair: Annalisa Riccardi.
- 2021, July 7-9 (postponed from 2020) Toulouse, France - virtual format.
Chair: Sonia Cafieri.

The most recent EUROPT Workshop was held at the University Nova de Lisboa, Portugal, on July 29-30, 2022. The PC Chair was Giancarlo Bigi, and co-Chairs were Paula Amaral and Sonia Cafieri.

The number of participants in the EUROPT Workshops has been generally growing, from about 30 participants at the first workshop in Budapest, 2000, to almost 300 registered participants from 37 countries at the workshop held in 2021 in Toulouse (virtually). Participation of young researchers is always encouraged, and is increasing over the years. Among the participants of the 18th workshop in 2021, almost 70 were graduate students. That 2021 edition was special in other ways: for the first time, the event was held in a completely virtual format, and for the first time attendance was free of charge, thanks to the support of sponsors. The success of the Workshop showed that, despite the difficulties of the pandemic situation, the EUROPT community is ready to adapt to

a changing world and its members are always happy to get together to share the latest achievements in the field of Continuous Optimization.

See Fig. 1 for group pictures of participants of some EUROPT Workshops.

EURO-k conferences. The EUROPT Workshops are usually organized as satellite events of the EURO-k conferences. Here k denotes the serial number of the conference, starting from the first EURO conference (EURO I held in 1975 in Brussels). Since the very beginning, the main activities of EUROPT included participation in EURO-k conferences, together with the organization of special sessions, streams and mini-symposia in the framework of these conferences. At the EURO-k conferences, EUROPT members have delivered many plenary and semi-plenary lectures on Continuous Optimization.

The idea of strongly involving the EURO WGs in the EURO-k conferences was adopted and implemented during the EURO XXI conference in 2006. This has been a core reason for the rapid increase in the attendance of EURO conferences from 2006 onward. It is worth noting that this warmly accepted proposal came from some EUROPT members.

Organization of Summer and Winter Institutes / Schools. The organization of Summer and Winter Institutes/Schools is part of the EUROPT activities, aimed at promoting Continuous Optimization, in particular among young researchers.

In 2005, the EURO Executive Committee accepted the proposal of EUROPT for an EURO Summer Institute (ESI) “Optimization Challenges in Engineering: methods, software and applications” in Lutherstadt Wittenberg, Germany. This ESI was successfully held on August 18 - September 2, 2006 and became one of EUROPT’s highlights in 2006.

More recently, a EUROPT Summer School was held from August 30 to September 1, 2021, in fully online format because of the pandemic situation still impeding on-site events. The theme “The need, the challenge and the success of robust and nonsmooth optimization” attracted a great deal of involvement from many countries, and the success of this School led the EUROPT MB to consider making it a recurring event. A new Summer School, whose theme focuses on algorithms for optima and equilibria, has indeed already been organized at the beginning of August 2022, following the workshop in Lisbon.

So far, EUROPT has not organized Winter Institutes or Schools, but we are confident that in the future this kind of events will be included in the list of events held by the working group.

Support to EURO Mini Conferences. EURO Mini Conferences are specialized conferences on a particular promising OR topic for a limited audience of specialists. In such a framework, the screening of papers can be more effective and participation in the debates can be more lively than at larger meetings. EUROPT members have been actively organizing Mini Conferences on different topics connected to Continuous Optimization and its applications.

In June-July 2005, the 17th EURO Mini conference “Continuous Optimization in the Industry” was organized by EUROPT in Pécs, Hungary.

In May 2008, the 20th EURO Mini Conference “Continuous Optimization and Knowledge-Based Technologies” was held in Neringa, Lithuania. It was organized by EUROPT together with LitORS - the Lithuanian Operational Research Society, GOR - the German OR Society, and other partners.

In September 2009, EUROPT supported some other EURO WGs in organizing the 5th International Vilnius Conference and EURO Mini Conference “Knowledge-Based Technologies and OR Methodologies for Strategic Decisions of Sustainable Development” (KORSD-2009) in Vilnius, Lithuania.

In June 2010, the 24th EURO Mini Conference “Continuous Optimization and Information-Based Technologies In the Financial Sector” was held in Izmir, Turkey. EUROPT was one of the most active organizers of this conference.

In February 2014, EUROPT members organized the EURO Mini Conference on “Optimization in Natural Sciences” at the University of Aveiro, Portugal. The Portuguese OR society APDIO supported this conference together with EURO and EUROPT.

Other conferences supported by EUROPT. Numerous further events worldwide were co-organized and supported by EUROPT since its foundation. Members of EUROPT are regularly invited to join Organizing and Program Committees of conferences having Continuous Optimization among their topics. They participate in the most important scientific meetings often taking the role of session organizers and session chairs, presenting their contributions, in some cases as plenary or invited speakers. More information about some of these events can be found in [5].

7. EUROPT cooperation

Some of the main examples of cooperation of EUROPT with other scientific societies around Optimization and OR are highlighted in the following.

Cooperation with IFORS and SIAM. Members of EUROPT actively participate in the IFORS conferences and the SIAM conferences on Optimization.

In 2017-2019, EUROPT Honorary Chair Tamás Terlaky served as the Chair of the SIAM Activity group on Optimization, and Co-Chair of the 2020 (postponed to 2021) SIAM Conference on Optimization. Miguel F. Anjos served as Program Director of this same SIAM Activity group in 2011-2013, and Co-Chair of the 2014 Conference.

EUROPT and IFORS support each other in exchanging and disseminating important information among their members. The IFORS News bulletin regularly publishes news about the events organized by EUROPT, publications and awards of EUROPT members.

EUROPT Honorary Chair Gerhard-Wilhelm Weber serves as EURO Conference Advisor, IFORS News Subeditor “Conferences”, member of the IFORS Developing Countries Committee, and PC member of EURO and IFORS conferences. Due to his special attention, the most important events organized by EUROPT are often in the focus of IFORS and EURO newsletters.

Cooperation with other EURO WGs and national OR societies. EUROPT is actively collaborating with other EURO WGs and its members support and organize new WGs as well. Thus, in 2005 a group of committed student members of EUROPT, established the EURO WG “Operational Research for Development”. Another EURO WG “Operational Research in Computational Biology, Bioinformatics and Medicine” proposed by some EUROPT members, was accepted by EURO in February 2006. EUROPT celebrated the foundations of these two new sister EURO WGs during EURO XXI in Iceland.

EUROPT plays an important role in bringing national OR societies close together. For example, the Hungarian and Turkish OR Societies became partners of the German OR society, EUROPT members from many national OR societies collaborate in organizing joint streams and sessions at the occasion of EURO-k conferences and annual meetings of national OR societies.

EUROPT also collaborates with POP (Pacific Optimization Research activity group). Gerhard-Wilhelm Weber has been a member of its Working Committee, and the two groups have joined forces at various scientific events in recent years.

8. EUROPT dissemination channels

The main channels of communication and dissemination of EUROPT are its website, Newsletter and mailing list.

EUROPT website. For many years the EUROPT website was hosted on a server of the Middle East Technical University, Ankara, Turkey, and was under the responsibility of the local technical team coordinated by Gerhard-Wilhelm Weber and Bülent Karasözen. Since 2017, EURO provides the means to host the webpages of EURO WGs on its main portal. A new version of the EUROPT website [2] was released at that time (at the initiative of Giancarlo Bigi who was the website editor), and is currently held by EURO. The website makes available to readers the main information about the working group, its history, its members and activities.

EUROPT Newsletter. The first official Newsletter of EUROPT was launched in October 2006. Kaisa Miettinen, then a member of the EUROPT Managing Board, undertook the challenging effort to prepare this first issue of the Newsletter. Since that time, 49 issues of the Newsletter were published. The frequency of the Newsletter has varied over the years. In recent years, it is around once per season, with the exception of 2021 that was affected by the COVID-19 pandemic.

The Newsletter Editors were: Kaisa Miettinen: 2006-2008 (issues 1-11), Domingos M. Cardoso: 2008-2010 (issues 12-21), Tatiana Tchemisova: 2010-2012 (issues 22-28), Adil Bagirov: 2013 (issue 29). Since 2014, Sonia Cafieri is the Newsletter Editor.

The issues of the Newsletter typically contain short articles announcing forthcoming events organized or supported by EUROPT, reporting on events organized or supported by EUROPT, announcing books and special issues of scientific journals edited by EUROPT members, and informing about job opportunities and open positions which could

be interesting for the EUROPT community. Typically, an issue begins with words from the EUROPT Chair, and ends with the Newsletter Editor's notes.

Articles and information disseminated through the Newsletter are usually collected from the EUROPT members by the Newsletter Editor.

At the initiative of Domingos M. Cardoso (Newsletter Editor in 2008-2010), new content was added to the Newsletter: Calls for Research Collaboration (including proposals for research activities, joint projects, research visits and working meetings), Short Notes, and Problems and Teaching Activities (including problem statements, solutions, short texts about specific topics and short proofs of fundamental results with personal touches). Some eminent members of EUROPT, such as (in alphabetical order): Neculai Andrei, Miguel F. Anjos, Adil M. Bagirov, Domingos M. Cardoso, Sven-Aake Gustafson, Leonidas Sakalauskas, Yuri Nesterov, Julien Ugon, and others have published this kind of content. Among the renowned EUROPT members contributing the most to the Newsletter, Gerhard-Wilhelm Weber authored or co-authored over the years a few dozen articles, in particular reports on EUROPT related events.

Later editions of the Newsletter edited by Sonia Cafieri always contain at least one section dedicated to the EUROPT Workshops, specifically to the upcoming annual workshop and to the last workshop held, as well as a section reminding about the contacts and roles of MB members. All the Newsletters are available on [6].

EUROPT mailing list. The EUROPT mailing list is also an important communication channel, since it is of special interest to disseminate short announcements. All members of EUROPT have the possibility to directly inform the research community about events, journal calls, available positions, etc., by sending their messages to the mailing list (moderated by the MB).

9. Editorial work and publications

EUROPT members share their contributions advancing Continuous Optimization and its applications through publications in the main journals on Optimization and Operational Research. They regularly act as reviewers for these journals, and some EUROPT members are Editors-in-Chief, Associate Editors, Editorial Board members or Guest Editors of special issues.

EUROPT members have indeed been always paying special attention in proposing and editing special issues of leading journals on Optimization and Operational Research, often dedicated to EUROPT Workshops and to other events in which EUROPT members were involved.

Many excellent journals with which EUROPT collaborated through special issues deserve to be named here. For the purpose of covering all facets of EUROPT here while remaining brief, we only select and name a few (in alphabetical order): Annals of Operations Research (ANOR or AOR), Central European Journal of Operations Research (CEJOR), EURO Journal on Computational Optimization (EJCO), European Journal on Operational Research (EJOR), Journal of Global Optimization (JOGO),



Fig. 2. 10 years celebration: Workshop in Aveiro, Portugal, July 9-10, 2010. On the left (bottom): Gerhard-Wilhelm Weber with Marco Lopez and Leonidas Sakalauskas.

Mathematical Methods of Operations Research (MMOR), Mathematical Programming, Optimization, Optimization Methods and Software (OMS), Pacific Journal of Optimization (PJO), RAIRO - Operations Research, TOP - An Official Journal of the Spanish Society of Statistics and Operations Research. Many proceedings and a book in the series “Communications in Nonlinear Science and Numerical Simulation” by Springer were edited with the help of EUROPT and contain publications by EUROPT members.

10. EUROPT 10- and 20-years celebrations

EUROPT celebrated its 10 and 20 years of activity in 2010 and 2020 respectively (the latter celebration being postponed to 2021 because of the COVID-19 pandemic). Here we recall these celebrations.

10 years celebration. The 8th EUROPT Workshop on Advances in Continuous Optimization took place in Aveiro, Portugal, on July 9-10, 2010 (see Fig. 2). During this workshop, we celebrated the 10th anniversary of our Working Group. The Workshop was attended by about 120 participants and the program featured more than 90 talks (co-authored by around 150 researchers) delivered by researchers on Continuous Optimization. Among them we can emphasize the invited speakers Immanuel Bomze (University of Vienna), Mirjam Dür (University of Groningen), Alexander Shapiro (Georgia Tech), Tamás Terlaky (Lehigh University), Luís Nunes Vicente (University of Coimbra), and Henry Wolkowicz (University of Waterloo). During the Workshop, the EUROPT Fellow title was awarded to Yurii Nesterov from the Catholic University of Louvain, Belgium. According to tradition, he presented his Fellow lecture during the Workshop.

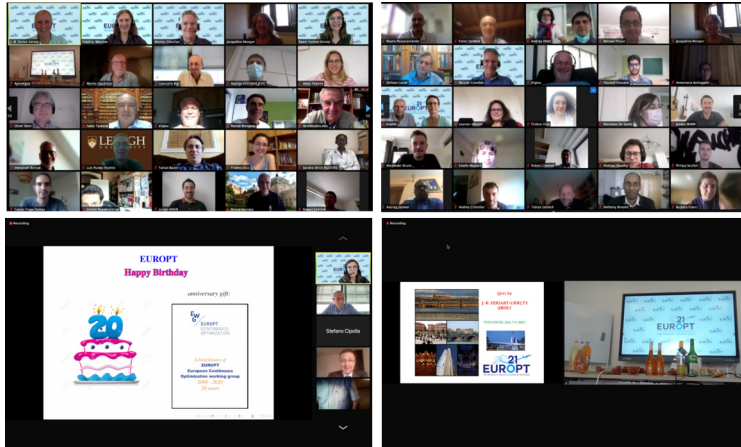


Fig. 3. 20 years celebration: virtual Workshop in Toulouse, France, July 7-9, 2021.

The participants of the Workshop in Aveiro were also honored by the first public presentation on the refutation of the Hirsch Conjecture by Francisco Santos Leal from the University of Cantabria (see [7]).

On the occasion of the Workshop, the EUROPT MB decided to attribute to Gerhard-Wilhelm Weber the title of *Honorary Chair* of EUROPT.

The celebration of EUROPT's first jubilee continued during the conference dinner, where Gerhard-Wilhelm Weber presented the short history of the first ten years of EUROPT and the participants tasted the anniversary cake accompanied by a concert presented by the University students orchestra "Magna Tuna Cartola".

20 years celebration. The 20th anniversary of EUROPT was in 2020, a year unfortunately marked by the COVID-19 pandemic, with none of the EUROPT activities taking place. Hence, we celebrated this important milestone in 2021 on the occasion of the annual workshop. The 18th edition of the EUROPT Workshop (EUROPT 2021) was held virtually on July 7-9, 2021, organized in Toulouse, France (see Fig. 3). It was expected to take place in 2020 but the Organizing Committee and the EUROPT MB decided to postpone it to 2021 while maintaining its original location. The evolution of the situation and the difficulties persisting in international travels finally led to the choice of a virtual format.

There were 295 registered participants from 37 countries. The scientific program consisted of exactly 200 talks covering all aspects of Continuous Optimization, and was organized in the form of invited and contributed streams. The talks were held live, with Zoom used for broadcasting live video and audio.

Two of the plenary lectures were delivered by Martine Labbé (Université Libre de Bruxelles, Belgium), and Oliver Stein (Karlsruhe Institute of Technology, Germany). As a result of postponing the Workshop from 2020 to 2021, this special edition had the honor of presenting awards to two EUROPT Fellows: the 2020 Fellow Manlio Gaudio (Università della Calabria, Italy) and the 2021 Fellow Monique Laurent (Centrum

Wiskunde & Informatica, and Tilburg University, The Netherlands). In accordance with the tradition, both of them delivered their lectures.

EUROPT 2021 incorporated also a series of social events, held of course in a virtual format. The celebration of the 20 years of EUROPT was a major event. Gerhard-Wilhelm Weber (Honorary Chair of EUROPT since 2010) presented an historical perspective: *EUROPT 20th birthday: a flashback*. As a gift for this anniversary, the organizers of the Workshop, together with Gerhard-Wilhelm Weber, prepared a booklet that traces the history of EUROPT. This booklet can be downloaded from the conference website [8]. Another virtual social event was based on an original idea by Jean-Baptiste Hiriart-Urruty: *An online quiz*. The questions (about a dozen) were about sports or festive events; comparative life habits in different European countries; a bit of mathematics (optimization, of course). A *daily virtual panel game* was also organized, based on a few short questions by Jean-Baptiste Hiriart-Urruty, to excite curiosity and provide some leisure for the participants.

11. Concluding words

The aim of this article was to present a brief overview of the milestones of EUROPT's history, and its rich scientific activities.

The authors cordially thank all members and friends of EUROPT, everyone who has spent time with us, served with us and gave EUROPT a face and a smile! Now we hope and trust that EUROPT will remain contributing actively and fruitfully to Continuous Optimization and Operational Research in Europe and in the world, supporting innovative science and technology, promoting interdisciplinary research and cooperation with industry, supporting young researchers, and, ultimately, promoting friendship and mutual understanding, peace and humanity.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The authors thank the guest editors of this Special Issue of the EURO Journal on Computational Optimization (EJCO), Miguel Anjos, Tamás Terlaky and Tibor Illés, for their kind and honorable invitation to write this article about some precious moments in the history of the EUROPT working group. We thank them for all their guidance and support, and we include into our thanks the Editor in Chief of EJCO, Immanuel Bomze, and his editorial team. With all these scholars we spent unforgettable moments and served at the side of the many members of EUROPT. We are deeply thankful to all of them. Last but not least we extend our sincere gratitude to the Association of

European Operational Research Societies (EURO) which always supported EUROPT and each of us at every moment, and made these fruitful and beautiful years of service, dedication and friendship possible.

The work of the second author was supported by Portuguese funds through CIDMA - Center for Research and Development in Mathematics and Applications, and FCT - Foundation for Science and Technology, within the project UIDB/04106/2020.

The authors thank the anonymous reviewers for their valuable comments and suggestions which helped improving the presentation of this article.

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