

ACTIVITY REPORT 2017

Presented to EPS Council, 06 - 07 April 2018



European Physical Society

more than ideas

ACTIVITY REPORT 2017

Presented to EPS Council, 06 - 07 April 2018



| President's Report | **Rüdiger Voss** |

INTRODUCTION FROM THE PRESIDENT

The EPS serves the European physics community in a twofold way: by promoting collaboration and fostering cohesion, across national borders and scientific disciplines, through the classical activities of a learned society such as conferences, publications, and prizes; and by reaching out to political decision makers, media, and the general public, promoting awareness of the importance of physics education and physics research in an increasingly complex and competitive environment. The unique diversity of our Society is reflected in a rich variety of activities and achievements; paying tribute to all highlights and actors on two printed pages is close to a mission impossible.

Conferences are an activity where the EPS is highly successful. Our Divisions and Groups organize many of the most important and prestigious meetings in Europe, often drawing a global audience. The biannual CLEO/Europe conference held in Munich has once again taken the top spot with nearly 2000 participants. Following a recommendation from the Conference Committee, a simplification has been introduced in 2017: whereas the established “Europhysics Conference” label will be maintained, all high-quality meetings or workshops to which the EPS can offer only limited support will in future be grouped under the label “EPS Recognised Conference”.

In the publications area, our top scientific journal EPL continues to be in the centre of attention. Its mission to serve as a broadband journal with a strong

interdisciplinary focus, and its traditional, subscription-based business model are challenged by a proliferation of new and highly specialised online-only titles, and by the move towards Open Access publishing. To flourish in a rapidly shifting publishing landscape, EPL will need to reinvent itself with new editorial initiatives and a revised business model. In this process, EPL can rely on experienced production and distribution partners, and on its greatest asset: a high-profile, volunteer Editorial Board which ensures the highest standards of quality and integrity. I take this opportunity to thank Giorgio Benedek, who completed his term as Editor-in-Chief at the end of 2017, for his outstanding services. With his successor Bart van Tiggelen and newly appointed Deputy Editors, our flagship journal will continue to be in capable hands.

EPS prizes, awards and distinctions reward outstanding scientific achievements, encourage emerging talent, and recognize exceptional services to the physics community. In 2017, an illustrative example was the Giuseppe and Vanna Cocconi Prize of the High Energy and Particle Physics Division awarded to Barry Barish, Kip Thorne and Rainer Weiss, shortly before the same three scientists were awarded the Nobel Prize. The EPS Historic Site program continues to be popular: six new sites in Geneva, Bristol, Zürich, Eindhoven, Paris and Bucharest have been inaugurated in 2017, and more will follow in 2018.

CONTENTS

- 01 introduction from the President
- 02 Executive Committee Activities
- 03 Highlights from 2017
- 08 Financial Report 2017
- 09 Secretariat
- 10 Reports by EPS Action Committees
- 14 Journals Reports 2017
- 21 Conferences and prizes in 2017
- 22 EPS Divisions and Groups

Beyond their strong roles in organizing conferences and awarding prizes, Divisions and Groups (D/G) form the backbone of our scientific activities. I extend a special welcome to our new Gravitational Physics Division under the leadership of Mairi Sakellariadou, which plans to organize its first scientific conference in early 2019. The Executive Committee has introduced regular joint meetings with D/G chairs on a rotational basis to improve communication, identify strengths and weaknesses, and share best practice, in greater depth and detail than is possible at Council meetings. The last meeting in this format was successfully attached to an Executive Committee meeting in October, and we plan to continue this scheme with a frequency of at least one meeting per year.

The Young Minds Project is the flagship program of the EPS to support and federate the young generation of scientists which represents the future of our field, with a special emphasis on outreach activities and cross-border networking. The basic organisational units of the YM Project are local Sections, which have increased in number from 40 to 49 in 2017, now representing 23 different countries – one of the greatest increments since the project was started in 2010. After handing over the Chair of the YM Action Committee to Eva Salvador in 2016, Antigone Marino's outstanding leadership in heading the project for many years has been rewarded with the well-deserved 2017 EPS Achievement Award.

The strong visibility of woman in the YM Project is just one aspect of our efforts to promote a better representation of female physicists, and to improve their career prospects at all levels. The Equal Opportunities Committee has initiated a new Gender Monitoring Program for EPS supported conferences which, in the medium term, is expected to lead us to more formal policies to ensure a fair representation of women physicists at our meetings. Another, well-established action to promote the visibility

and career of outstanding female scientists is the Emmy Noether Distinction, which in 2017 has been awarded to Catalina Curcaneu and Françoise Remacle.

(Un)equal opportunities of a different kind are on the agenda of the Committee on European Integration (CEI). Almost thirty years after the fall of the iron curtain, research and funding opportunities continue to be unevenly distributed across Europe, and disparities persist between East and West. The CEI addresses the problem through the strengthening of regional co-operation between Eastern, Central, and South-East European countries, and with other Member Societies. In the same spirit, the EPS supports the new initiative for a South East Europe International Institute for Sustainable Technologies (SEEIST).

The EPS will celebrate an important milestone in 2018: on September 26, it will be 50 years that our society was formally launched with a ceremony in the Aula Magna of the University of Geneva. A ceremony to celebrate this anniversary will be held in the same venue on September 28; Divisions, Groups, Member Societies – in short: all EPS stakeholders – are encouraged to set aside time in their meetings, and space in their publications, to celebrate 50 years of EPS and to promote the mission and activities of our society. An example has been set by a special “EPS 50” session at the recent joint meeting of the Condensed Matter Divisions of the EPS and the German Physical Society in Berlin.

For several years, the EPS has undertaken efforts to sharpen its science policy profile, principally through the establishment of a Point of Presence in Brussels led by Walter van Doninck, and of the Advisory Board on Science Policy. A focal point is our participation in the ongoing stakeholder consultations for preparing FP9, the next Framework Program of the European Commission. The EPS is one of almost 12'000 organisations registered in the EU Transparency Register – not all of them concerned with science policy

and Framework Programs, but the sheer number illustrates the challenge of making our voice heard in Brussels. Increased efforts will be needed to expand our networks, and to team up with partner organisations to defend common interests. In parallel, we play an active part in the ongoing Open Science debate launched by the Commission, principally through our former President Chris Rossel who serves as a member of the EC Open Policy Platform.

To be a credible actor on the policy stage, the EPS needs to establish a comprehensive and robust evidence base. Initially, the study on “The importance of physics to the economies of Europe”, first published to much acclaim in 2012, will be updated based on recent statistical data. The backbone, however, will be the framing document “Grand challenges on the Horizon 2050”, designed to address the scientific and the societal challenges which physics is expected to face between today and the middle of the twenty-first century. This project, led by Carlos Hidalgo, is making good progress and will be complemented by a meeting of the EPS Forum Physics and Society on 29 September 2018, the day following the 50th anniversary celebration.

The Annual Report is a golden opportunity to thank the many people who, once again, have worked hard to keep the EPS at the forefront of service to the physics community. Quite fortunately, they are too numerous to list them all by name. However, I wish to say a special “merci” to my predecessor, who will step down as Vice President at the forthcoming Council meeting, for excellent collaboration and unfailing support. Knowing Chris, I am certain that his commitment to our society will not end when he leaves the presidential line. An equally big “thank you” goes to all Chairs of our Divisions and Groups; to the Members of the Executive Committee, especially those who are bound to leave after two completed terms; and, last but not least, to David Lee and his colleagues for efficient support and smooth operation of our Secretariat in Mulhouse. ■

| Honorary Secretary's Report | **Lucia di Ciaccio** |**EXECUTIVE COMMITTEE ACTIVITIES 2017**

The EPS Executive Committee develops the EPS policy, discusses ongoing activities, financial matters, future plans, and puts in practice effective strategies to improve the visibility of the EPS.

The Executive Committee typically holds three regular meetings per year where its members meet face-to-face. The EPS President, elected by the Council, chairs the Executive Committee meetings.

Since the 2017 Council meeting in April, the Executive Committee has met three times: on the 8-9th of June at the EPS Headquarters in Mulhouse (F), on the 26th and 28th of October at CERN in Geneva (CH) and on the 8-9th of February 2018 in Munich (D). Summaries of these meetings are published on the EPS Website and available to the Individual Members. Furthermore on the 27th of October, a dedicated meeting with D/G Chairs took place. The activities of all Executive Committee members are reported monthly in the e-EPS newsletter.

In 2017 the Executive Committee has addressed several items.

Enhancing the visibility and the influence of the EPS in the European instances is a priority item. Significant progress on the EPS Point of Presence in Brussels has been

made. W. van Doninck, as EPS policy officer in Brussels, has developed contacts to high level EU officials and with other learned societies.

Furthermore the Executive Committee has identified additional topics that EPS needs to address in order to develop and consolidate its presence with EU Policy makers. These are possible subjects for new or updated EPS Policy documents.

The Executive Committee has proposed and started to prepare a framing document on Grand Challenges and on the many contributions of Physics to Society, written by physicists addressing people outside our community: policy makers, stakeholders, and general public. The project is associated to the activity of the Forum Physics & Society (FPS). The purpose, structure and content of the document have been defined and a preliminary version will be presented and discussed at the next FPS meeting foreseen at the end of 2018.

In 2017, the Executive Committee revised the policy for recruitment of Associated Members (AM). AMs are important since more members from commerce and industry would render the EPS more representative. The new policy joins AM recruitment and the potential to be recognised as a

sponsor of EPS activities. Three 'packages' with different membership fees and corresponding benefits will be offered to potential AM and D/G will play an important role in the new AM recruitment procedure.

In order to involve the delegates at Council more in the development of EPS activities, a call for projects from EPS D/G and EPS Member Societies was made in early 2017. The first call for projects from EPS Council was very successful, with 17 proposals from many different fields. In the course of the year, the Executive Committee has worked to further define the selection and evaluation criteria following the recommendation of the Council.

The Executive Committee as well as the D/G Chairs have approved the project of monitoring the percentage of women at Conferences as participants, organisers or speakers. The practical implementation of the project has been finalised. It will run over two years starting from January 2018. As second step, it can be envisaged to take proper corrective actions, if necessary.

In 2017 the Executive Committee discussed the need to establish an ethics committee where ethics in this context refers to the ethical conduct of science, and not human rights. The proposal to

DIVISION AND GROUP	EXECUTIVE COMMITTEE MEMBERS	MEMBER SOCIETY
Condensed Matter Division, History of Physics Division	Bergé, Luc	Albania, Croatia, Macedonia, Montenegro, Serbia, Slovakia, Slovenia
Physics for Development Group	Bethke, Siegfried	Austria, Germany, Liechtenstein
Accelerators Group	Bracco, Angela	Belgium, Italy, Portugal
High Energy and Particle Physics Division	di Ciaccio, Lucia	France, Luxembourg, The Netherlands
Division of Physics in Life Sciences, Statistical and Non-linear Physics Division	Friberg, Ari	Denmark, Finland, Iceland, Norway, Sweden
Physics Education Division, Plasma Physics Division	Jacquemot, Sylvie	Aremnia, Cyprus, Greece, Israel
Quantum Electronics and Optics Division, Technology and Innovation Group	Leuchs, Gerd	Belarus, Czech Rep., Georgia, Ukraine
Atomic Molecular and Optics Division	Rachlew, Elisabeth	Estonia, Latvia, Lithuania, Poland
Environmental Physics Division	Saunders, Frances	UK
Joint European Solar Physics Division, Energy Group	Tran, Minh Quang	Russia, Spain, Switzerland
Computational Physics Group, Nuclear Physics Division	Zamfir, Victor	Bulgaria, Hungary, Moldavia, Romania, Turkey

restructure the terms of reference for the Equal Opportunities Committee, with possibly a new name “Diversity and Ethics Committee” is being worked out. A revision of the EPS Conference Policy was also discussed and agreed.

The Executive Committee followed closely the evolution of the EPL journal and the Europhysics News magazine. A transition of EPL to different business models, including “gold” Open Access is under consideration. This latter would be in line with the current widely recommended EU publication strategy even though concerns exist about possible

difficulties for institutions that cannot afford to pay the article processing charges.

At its meetings, the Executive Committee invites representatives of national physical societies, representatives from other learned societies, policy makers, and Chairs of D/G. In 2017, the EPS Executive Committee met with E. Salvador, Chair of the Young Minds, a very active Action Committee, and discussed strategies to strengthen the participation in particular from European Northern Countries.

The Executive Committee is involved in the preparation of the celebration for the 50th anniversary of the EPS which will take

place on the 28th of Sept 2018 in the Aula Magna of the University of Geneva, which is an EPS Historic Site. Several events are planned like for example a *Forum Physics and Society* with four topical lectures.

The members of the Executive Committee play an important role in establishing and maintaining contacts to Member Societies and D/G. Every Executive Committee member is the direct contact person for a small number of Member Societies. The same principle has been introduced to establish privileged contacts with the D/G as shown in the table. ■

HIGHLIGHTS 2017

HISTORIC SITES



Luisa Cifarelli and Giuseppe De Natale after the unveiling of the EPS Plaque posed on the walls of the Reale Osservatorio Vesuviano.

The Historic Sites (HS) Committee was created at the end of 2011 when the HS initiative was started by the EPS.

Current Members of the EPS HS Committee are: **Alan Chodos** (representing the American Physical Society, APS), **Luisa Cifarelli** (Chair), **Martin Huber**, **Maciek Kolwas**, **Ove Poulsen**, **Peter Maria Schuster**, **Fritz Wagner**.

OBSERVER: Enrique Sanchez (EPS Young Minds).

Through December 2017, 63 proposals of Historic Sites were received, either spontaneous or channelled through National Member Societies. Let us recall

that proposals can be made at any time from the EPS web site: http://www.eps.org/?page=distinction_sites

The Historic Sites Committee examines the proposals typically three times per year.

As of December 2017, **58 proposals of EPS Historic Sites have been accepted** in the following **23 Countries** (2 of them outside geographical Europe): Austria, Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Hungary, India, Ireland, Italy, Lithuania, The Netherlands, Poland, Portugal, Romania, Russia, Serbia, Spain, Sweden, Switzerland, United Kingdom, United States.

As of March 2018, **38 EPS Historic Sites have been inaugurated in 19 different Countries:**

1. The Goldfish Fountain of the Physics Institute of Panisperna Street – *Centro Fermi*, Rome, Italy, 20 April 2012
2. Laboratory “Les Cosmiques”, Col du Midi, Chamonix, France, 23 July 2012
3. Hoza 69, Warsaw, Poland, 10 January 2013
4. The Study of Bruno Pontecorvo – JINR, Dubna, Russia, 22 February 2013
5. The Hill of Arcetri, Florence, Italy, 17 May 2013
6. The Villa Griffone in Pontecchio Marconi, Bologna, Italy, 26 May 2013
7. The Observatory of Tycho Brahe, Hven Island, Landskrona, Sweden, 11 September 2013
8. The LAL-LURE Accelerator Complex, Orsay, Paris, France, 13 September 2013
9. PTB, Formerly PTR, The National Metrology Institute, Berlin, Germany, 8 October 2013
10. The Cathedral, Kamien Pomorski, Poland, 11 October 2013
11. The Neutrino Experiment at MTA Atomki, Debrecen, Hungary, 25 October 2013
12. The Niels Bohr Institute, Copenhagen, Denmark, 3 December 2013
13. The AdA Storage Ring at the INFN Frascati National Laboratory, Frascati, Rome, Italy, 5 December 2013.
14. The European Birthplace of the Atomic Timekeeping – NPL, Teddington, UK, 31 January 2014
15. The Blackett Laboratory, London, UK, 30 April 2014
16. The Fabra Observatory, Barcelona, Spain, 9 May 2014
17. The Study of Georgi Nadjakov, Sofia, Bulgaria, 23 May 2014
18. The Synchro-Cyclotron, SC – CERN, Geneva, Switzerland, 19 June 2014
19. The Kamerlingh Onnes Laboratory and Lorentz Institute, Leiden, The Netherlands, 9 February 2015.
20. The Fisor Lutheran Secondary School, Budapest, Hungary, 23 April 2015
21. The Ludwig Maximilian University, Munich, Germany, 6 May 2015

22. The Students Residence (Residencia de Estudiantes), Madrid, Spain, 13 May 2015
23. The Mount Vesuvius Observatory, Herculaneum, Naples, Italy, 23 May 2015
24. The Institute for Radium Research, Vienna, Austria, 28 May 2015
25. The Einstein House, Bern, Switzerland, as **Joint APS-EPS Historic Site**, 14 September 2015
26. The Hotel Metropole, Brussels, Belgium, 24 October 2015
27. The Ernst Mach Physics Institute, Prague, Czech Republic, 18 February 2016
28. The Cabinet of Physics of the University of Coimbra, Coimbra, Portugal, 11 March 2016
29. The Former Physical Institute of the University of Würzburg, Würzburg, Germany, 7 June 2016
30. The “Piersanti Mattarella Tower of Thought” of the Ettore Majorana Foundation and Centre for Scientific Culture, Erice, Italy, 21 August 2016
31. Uddamanska House, Kungälv, Sweden, 29 October 2016
32. The Institute for Advanced Study, Princeton, NJ, USA, as Joint APS-EPS Historic Site, 9 November 2016
33. “Les Bastions” of the University of Geneva, Geneva, Switzerland, 29 March 2017
34. H.H. Wills Physics Laboratory (Royal Fort) of the University of Bristol, Bristol, UK, 13 September 2017
35. IBM Research Laboratory, Rüschlikon, Zürich, Switzerland, 26 September 2017
36. The Philips NatLab, Eindhoven The Netherlands, 5 October 2017
37. The Curie Laboratory of the “Institut du Radium”, Paris, France, 7 November 2017
38. Magurele Physics Campus, Magurele, Romania, 15 November 2017.

Already scheduled inaugurations in 2018, in 4 different countries, are the following:

- Institute of Physics, University of Palermo, Italy
- Institute of Spectroscopy, Troitsk, Moscow, Russia
- Dunsink Observatory, Dublin, Ireland
- Physics Building of the Eötvös Loránd University in Budapest, Hungary

For each inauguration event, a plaque is unveiled in the presence of the local representatives and authorities. The EPS President or his representative (Past President or Member of the EPS Executive Committee or Member of the EPS HS Committee) attends the ceremony. For each ceremony, a news is published right away in the electronic newsletter e-EPS and on the EPS web site, and an extended article is published afterwards in EPN.

So far, this initiative has been a series of success stories: while highlighting places which have been significant for the history and the progress of physics, it provides visibility to physics research and to the physics community.

YOUNG MINDS

The aim of the Young Minds project is to encourage and support professional skills of the next generations of physicists in Europe. To that end, YM project supports the creation of local students groups, called YM Sections. These Sections, once they have joined the project, direct their efforts a) to organise seminars, workshops and schools, b) to carry out educational activities for schools and in general outreach activities and c) to join and enrich the scientific community through the implementation of national and international network collaborations, between them, with the local communities and with other societies.

Since the creation of the project, the number of YM Sections increased year after year. In 2017 the YM growing trend continued. Nowadays, the project includes more than 500 young scientists from over 49 Sections in 23 countries.

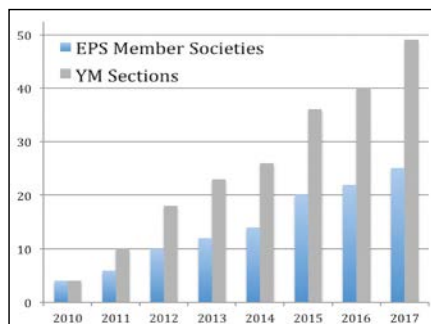


Figure 1 – YM growth from 2010 to 2017

The YM project supports the activities of sections with small grants. The main criteria for evaluating their activity grant applications are professional relevance, cultural outcome, visibility for EPS and impact per Euro. For the following years, apart of increasing the number of sections, the visibility of activities performed should also increase. For that reason the reports of the activities are published on the YM website: <http://www.epsyoungminds.org/activities/>

Moreover, in July of 2016 a Facebook public page was created for Young Minds: <https://www.facebook.com/EPSYM>

Since its creation the Facebook page has 350 likes and it has reached more than 2000 people with its publications. This means that the number has doubled over the previous year, and as shown in the graph below, this increase is produced mainly after the leadership meeting. In the next paragraphs the key points the project had to face in 2017 are described.



Figure 2 – Number of likes of YM Facebook page

YM Granted Activities

For each year 2 dates, fixed for the 15th of January and the 15th of July, are set as deadlines for the grants request submission. During 2017, the project funded 74 activities, submitted from 37 Sections: 40% outreach activities, 29% professional development ones, and the 31% networking activities.

To be able to cover the expenses, the budget for YM as increased in 2017 and the prevision is that it should be increased for 2018 as the number of sections and people involved continue to grow. Moreover, as the number of sections increases year after year, in order to keep in touch with the members of all sections, each member of the Action Committee takes care of some particular regions, shown in the following map. In this image, orange dots represent the different YM sections in 2017.

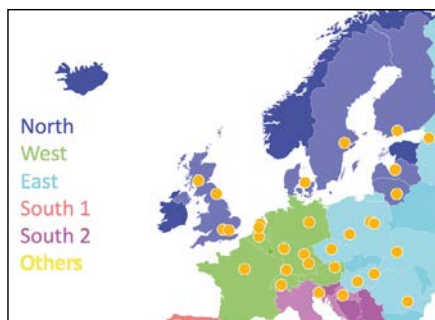


Figure 3 – YM Sections map

YM Action Committee

The YM Action Committee is composed from senior scientists, young scientists, and people from the EPS staff. In order to coordinate and organise the activities of Young Minds, the members of the AC do a great effort.

Rüdiger Voss, EPS President, and Sylvie Jacquemot, member of the Executive Committee represent the senior part. The EPS staff members ensure the best connection between the project and EPS: David Lee; and the Ophélie Fornari. The young scientists part was modified this year. Eva Salvador (Spain) is the chair and three members of the Action Committee left: Ulrike Ritzmann (Germany), Bence Godo (Hungary) and Jonas Berziņš (Lithuania). The other members are Enrique Sanchez (Spain), Roberta Caruso (Italy) and Araceli Venegas (UK). Finally Imran Khan (Germany) and Giorgio Nocerino (Italy) joined the committee at the end of the year.

The action committee met twice in 2017. On May 11th in Naples (Italy) during the 6th YM Meeting, and on November 10th in Geneva (CH).

6th YM Leadership Meeting

The 6th Young Minds Leadership Meeting took place at the University Federico II on 12th-13th May 2017 in Naples, Italy. The meeting was organised by PONYS-Physics and Optics Naples Young Students, the local EPS Section, and the Young Minds Action Committee, supported by EPS, the Physics Department of Naples University Federico II, the Italian Physical Society (SIF), the local section of National Institute for Nuclear Physics (INFN Napoli) and the Institute of Applied Sciences and

Intelligent Systems of the National Research Council (CNR-ISASI).

This year there were representatives from 27 sections and most of them presented their activities to the rest either with an oral presentation, a poster or in both formats. The poster session focused on one specific activity per section, and the EPS Young Minds Committee assessed them based on originality, effort and relevance. This year, for the first time, two prizes were given. The 2nd prize was for EPS Young Minds & OSA Messina Student Chapters, whereas the Best Activity Prize – sponsored by EPL (Europhysics Letters) – was awarded to the European Physical Society Young Minds Vilnius, for Open Readings, an international conference for students of physics and natural sciences. Finally, the winner of the contest “5 minutes scientific talk” was Gabriel Bleotu, from the INFLPR in Romania.

Apart from the presentations of the sections, there were distinguished invited speakers. Prof. Carlo Altucci officially welcomed the sections with an overview of the department of Physics at the UNINA in Naples. Prof. Luisa Cifarelli presented the history and activities of the Società Italiana di Fisica. Christophe Rossel, past president of the EPS, provided a lecture highlighting the importance of networking for scientific career, followed by Francesco Tafuri, from Università degli Studi di Napoli Federico II & CNR-SPIN, who explained some of their main research topics. In the afternoon session, Karen Davies from the London Science Museum, engaged everyone with some tips to improve outreach activities. During the second day, Dr. Fatema Tanjia explained her research career inspiring young minds to break barriers.

Figure 4 – Picture of the 6th leadership meeting

YM and EPS

The Young Minds project tries to strengthen collaborations with other EPS member societies, divisions and projects. With the Quantum Electronics and Optics Division (QEOD), as in 2015, a limited number of travel grants for PhD Students to attend CLEO®/Europe-EQEC 2017 were offered. Moreover, EPS YM is helping for the organisation of the 27th Edition of the EPS Condensed Matter Division Conference, which will be held at the Technical University in Berlin. EPSYM together with jDPG will organise some special sessions for young physicists.

YM publishes regularly in e-EPS, and Enrique Sanchez, member of the Young Minds Action Committee is a member of the Equal Opportunities Committee. Finally, Eva Salvador, chair of EPS YM project has been a member of the jury of the European Science TV and New Media Festival, supported by EPS.

FORUM ON NEW INTERNATIONAL RESEARCH FACILITIES FOR SOUTH EAST EUROPE

The EPS was invited to one of the sponsors of the meeting by H. Schopper and S. Damjanovic. The main objective of the Forum was to bring together the main partners for realising international laboratories in South East Europe combining capacity building with bringing nations together following the CERN model. Among them were designers of the projects, potential future users of the region, scientists and engineers from universities and national laboratories, representatives of industry, and of government agencies. In introductory presentations, the importance of international cooperation for science and training in the region was presented.

Two large projects from which the region could benefit particularly were presented. Their concepts have been worked out by two groups of international experts and they are based on most modern technological developments enabling cutting-edge research in many domains



relevant to society. One is a synchrotron light source providing radiation research possibilities in many domains from physics to biology, material science, environmental science and even archaeology and medicine. The users' community would come mainly from university faculties and also industry. The second project is a facility for cancer research and treatment with heavy particles (protons and carbon nuclei) which would also enable biomolecular research. For both facilities a number of options will be presented and it is hoped that the discussions will provide indications which choices would be most interesting for the region.

Training of scientists, engineers and technicians is considered to be important from the beginning. Since the realisation of these projects will require several years to build, this time will be extensively used to train experts in order to build-up expertise, *i.e.* to form a sufficient critical mass of staff members for operation of the machines as well as to create users' communities. Thus, these opportunities will be mainly for the benefit of the young generation although they will also serve to reverse the brain drain.

EPS POINT OF PRESENCE (POP) IN BRUSSELS

For a little more than one year, the EPS has had a Point of presence in Brussels. The office is shared with EuCheMS, the European Association Chemical and Molecular Society in the premises of CSIC, the Spanish Science Council at Rue du Trône 62 in the Brussels European quarter. The office is managed by Walter Van Doninck, emeritus professor of Physics from the University of Brussels (VUB), after retiring from CERN.

Major objectives of the EPS

Brussels Presence:

- Set up a network of contacts to the EC, organising meetings and presentations (including pro-active proposals)
- Set up basis for providing expert advice and recommendations from scientists to relevant topics and problems connected to physics and basic sciences
- Identify themes and issues where the EPS can provide expertise that is useful for the EC and offer EPS support for EC policy
- Be aware of EC initiatives, programs/news and help the EPS as a society and its members to distribute information about these programs/initiatives/news
- Promote expanded physics education in secondary schools in all EU countries



The office in Brussels

Networking activities:

The EPS has been present at close to 50 meetings organised in Brussels by organisations such as LERU (League of European Research Universities), SwissCore, ESAE (European Society of Association Executives), Helsinki Challenge and others. These gatherings concerned position or briefing papers, midterm evaluations of H2020 or input to the next Framework Programme FP9.

The EPS Point of Presence has been invited to the European Parliament to attend discussions on:

- “The future of science through citizens engagement”
- The STOA (Science and Technology Options Assessment) annual lecture “Media in the Age of Artificial Intelligence”

Participating in these events has put EPS on the map in Brussels and contact has been established with many decision makers in the EC and Parliament.

In collaboration with EuCheMS, the EPS has promoted a paper on “Circular

Economy” to possibly be presented in the EU Parliament. Input from the Physics community will be essential in drafting the document. Contacts with other societies other than EuCheMS, Max Planck Gesellschaft, LERU, SwissCore, European Astronomical Society, and the European Society of Association Executives.

Recently EPS has been contacted through for the promotion of STEM (Science Technology Engineering Mathematics) education. A seed for such an initiative in Europe could be started at the Brussels Universities with support from EPS and its Belgian MS.

The public consultation for input to the Multi annual financing framework has recently been opened with rather general questions on Science Policy. EPS has responded in order to make its priorities known. The next consultation specifically on FP9 will follow soon.

In the Brussels landscape, input is usually provided via the presentation of position or briefing papers to be presented by its main author. Normally the EC also sends an expert to address the audience on the present issue. A debate then closes the event.

In contact with STOA, the EPS envisages to co-organise the 2018 annual lecture in the EU Parliament around the theme: “Cyber security coupled partly to quantum technologies”

Walter Van Doninck

MARCH FOR SCIENCE



MARCH FOR SCIENCE

The March for Science was a world-wide initiative that took place on April 22, 2017 to celebrate our passion for science and to call to support and safeguard the scientific community. Marches were organized at the same time in many different European cities, *e.g.*, Berlin, Frankfurt, Amsterdam, Brussels, Lyon, Paris, Vienna, London, Manchester, Stockholm, Uppsala, Budapest, Warsaw,

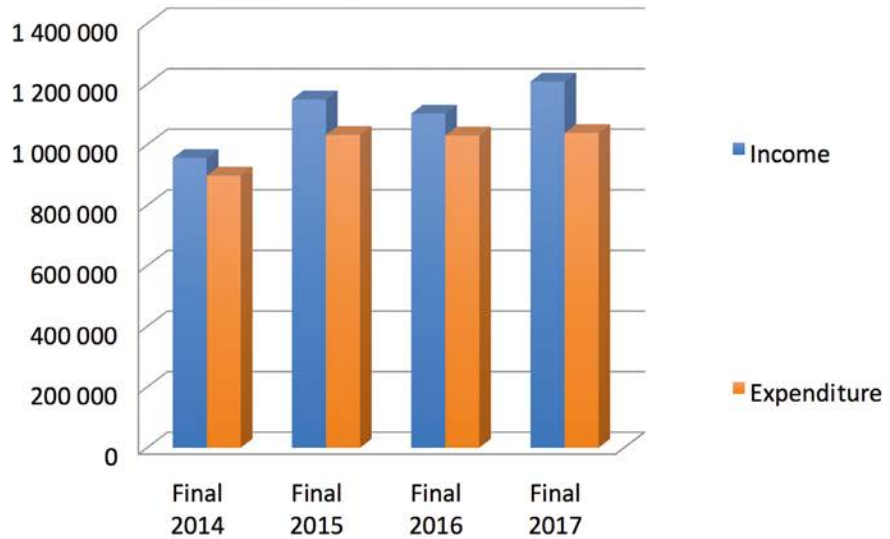
| EPS Honorary Treasurer's Report | **Gerd Leuchs** |
FINANCIAL REPORT 2017

The income for 2017 was Euro 1,151,333, 55% from Members, 23% from publication activities and 22% from conferences and other activities. The expenditure for 2017 was Euro 1,038,751, 28% for administration and governance, and 72% for activities. The outcome for the year was an excess of Euro 112,586.

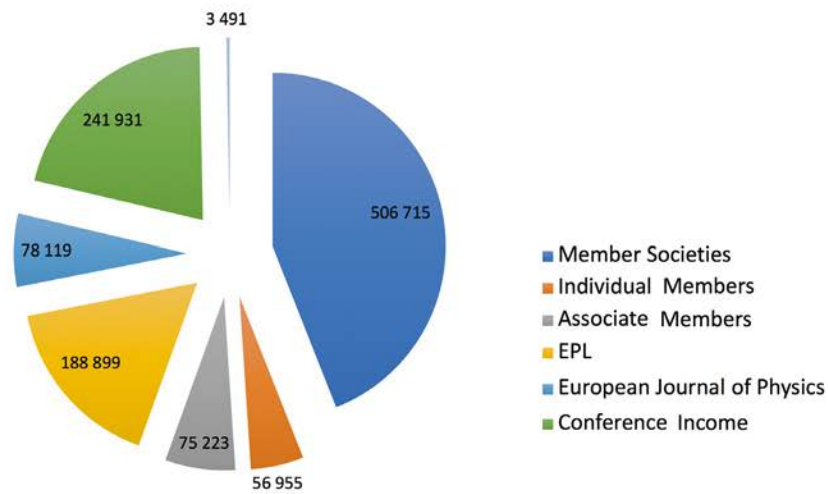
Income was 6.5% more than budgeted, due mainly to increased income from Conference Services, due to increased activity in the Conference Services Department. Administrative expenditure in 2017 was substantially lower compared to 2016 (Euro 286,361 in 2017 v Euro 309,770 in 2016), due principally to reduced costs for office maintenance and general administration. The activity expenditure increased by 4%, due in part to the projects decided by Council and increased costs for European relations.

Substantial work has been done in producing accounts that are more readable. This work will continue.

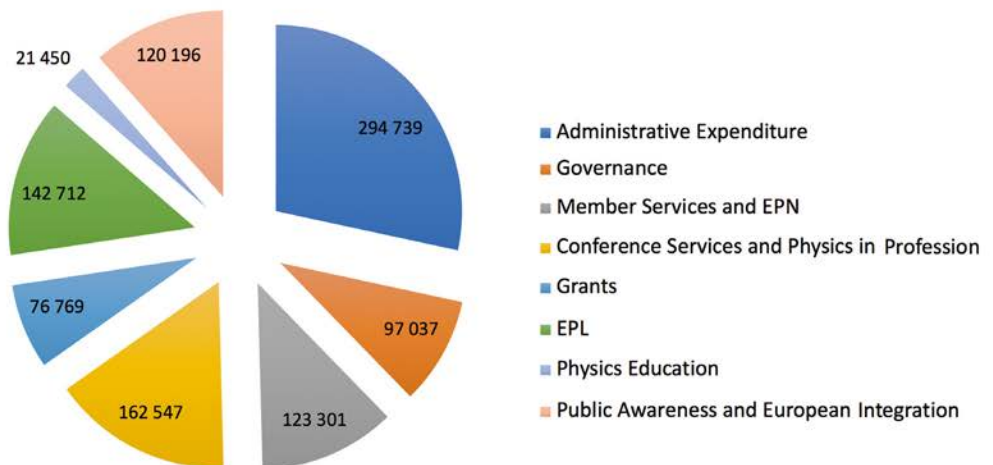
Income and Expenditure 2014 - 2017 (in Euro)



Income 2017 (in Euro)



Expenditure 2017 (in Euro)



SECRETARIAT

The Secretariat of the European Physical Society is headquartered on the campus of the Université de Haute Alsace, in Mulhouse, France. Staffing fluctuated throughout the year, linked mainly to conference activity and some natural staff turnover. At the end of 2017 the EPS employed 9.9 FTE, in 3 main areas: Core Secretariat (4.9); Conference Services (2), and the EPL Editorial Office (3). In addition, the UHA has made a full time secretary available to the EPS.

The Core Secretariat provides administrative services to the EPS, including accounting, graphic design, and information technology. Among the main tasks are the preparation of Europhysics

News and e-EPS, website maintenance and design, financial control, invoicing *etc.* The Secretariat also supports Divisions and Groups, and the activities of EPS Committees, and the Executive Committee. European relations, relations with other societies, communications, outreach, policy monitoring and EPS involvement in EU projects are also part of activities of the Core Secretariat.

The Conference Services department provides a full range of services for conferences organised by EPS Divisions and Groups. These include committee management, web site design and maintenance, communication, onsite logistics, online paper submission and

maintenance, budgeting, *etc.* Much work was undertaken to develop a clearer method of presenting the services and the advantages of EPS Divisions and Groups to use the EPS services. Conferences organised by the EPS Conference Service Department were Nanometa in Seefeld, AT and CLEO/Europe – EQEC in Munich (DE).

EPS headquarters in Mulhouse also houses the EPL editorial office: the staff editor, as well as 2 editorial assistants. In 2017, the EPS Editorial Office handled 1,566 manuscripts. The median submission-to-online time during 2017 remains below 100 days consistent with the previous year. ■

▼ Top: F. Burr, S. Loskill, D. Lee, G. Gunaratnam - Middle: P. Padovani, X. de Araujo, P. Helfenstein, A. Ouarab - Bottom: S. Fila, O. Fornari, K. Desse.



REPORTS BY EPS ACTION COMMITTEES

CONFERENCE COMMITTEE

Chair: Dominique Vernhet

Conferences, Workshops, and Summer Schools are essential elements in the communication of physics, the career development of physicists, the promotion of physics towards students and young scientists, and for the reputation, the credibility, and the visibility of the EPS and physics research activities. The role of the Conference Committee is to advise the EPS Executive Committee on the development of all activities and programmes in the area of such scientific events, and to administer EPS Conference grants. The committee members are Dominique Vernhet (Chair), Gerd Leuchs (EPS Treasurer), Ophelia Fornari (Secretary), Goran Djordjevic (Chair CEI), Jef Ongena (Chair EPS Energy Group), Marian Reiffers (former EPS Executive Committee from April 2016) and Christian Beck (Chair EPS SNPD).

The Conference Committee is responsible for the collecting and disseminating of information on Europhysics Conferences (*i.e.* conferences organised by EPS Divisions and Groups), and for evaluating applications to obtain the label of EPS Sponsored Conference. Conference organisers may also request EPS Conference patronage, which is awarded upon approval of the President and entitles the organisers to use the EPS logo and communications network to disseminate information.

Moreover, several specific actions have been conducted by the committee to clarify the conference policy. After a meeting of the Conference Committee in January 2017 in Paris, propositions have been presented to the EPS Scientific Council in Erlangen (March 31 – April 1st, 2017) and discussed at the meeting with Divisions and Groups on 27-28 October, 2017 at CERN. It has been decided to simplify the criteria to get the EPS label, applying the same criteria for all the EPS Conference categories and to post them clearly on the EPS Web site. Furthermore, as announced in the EPS news of January

2018, what were formerly known as “EPS Sponsored Conferences” will be called “EPS Recognised Conferences” to avoid any confusion with the support provided by the EPS.

On the other hand, stemming from a constant dialogue between the Chairs of the Equal Opportunities Committee and the Conference Committee, a monitoring project for Gender Fairness in Physics has been discussed and validated. A better representation of women in physics at all stages of the career is central for all Society caring about the well-being of its members.

A key element in the career development of physicists is their fair participation at conferences as speakers, committee members, and organisers. Through its Divisions & Groups, EPS organises many of the premier conferences in physics in Europe and the world. As part of its efforts to promote a better gender balance in physics. Last October 2017, during its Executive Committee and Divisions & Groups meetings, the EPS decided to put in place a comprehensive monitoring of the participation of women **in all conferences organised or recognised by the EPS.**

Conferences/ scientific events

The Conference Committee received 44 applications of conferences/events for 2017 (22 received in 2016 for 2017 and 22 in 2017). Among them, 25 Europhysics conferences, and 33 EPS Sponsored conferences have been approved for 2017, 1 European event called “European Physics Olympiads” was supported and 4 applications were rejected. The committee already received some requests for 2018, but decided to keep the application on “stand by”, as the conferences will take place in summer time. In 2017, the conferences organised by the EPS Conference Service were the Biophysics Conference in Barcelona, Spain with 177 participants, the NANOMETA Conference in Seefeld, Austria with 224 participants and the CLEO/Europe EQEC, in Munich, Germany with more than 1900 participants. In addition the EPS Secretariat was involved in the organisation of the

6th EPS Young Minds Leadership Meeting, in Naples, Italy.

Conference Grants

The EPS makes grants available to the organisers of Europhysics conferences to allow for the participation of **Young Scientists** in their meeting. Per conference a maximum of 3 grants of 350 € each can be distributed. In 2017, grants totalling **11 200 €** were distributed

IM Travel Grants: The EPS makes grants available to Individual Members (IMs) of the EPS to allow them to participate in an EPS labelled (Europhysics or Recognised) meeting. Members may receive a grant of 350 € only once and may request support only in the first 3 years of their membership. 16 such grants were distributed in 2017, for a total of **5 600 €.**

Invited Speaker Grants: The EPS makes grants, of 500 € each, available to conferences organised by EPS Divisions and Groups (Europhysics conferences) to cover costs of invited speakers. 11 grants were distributed in 2017, *i.e.* **5 500 €.**

EPS Poster Prize: Grants, of 200 € each, are available to EPS Europhysics or Endorsed conferences for a poster prize, to make an award to a student who has presented the best poster at the conference. 12 prizes were awarded in 2017, *i.e.* **2 400 €.**

Special Meetings Support

The EPS makes funds available for some special events. In 2017 the EPS supported the following events: IONS and the European Physics Olympiads for a total amount of **1 400 €.**

DISTINCTIONS AND AWARD COMMITTEE

Chair: Jo Hermans,
Members: Angela Bracco,
Elisabeth Rachlew, Marian Reiffers

On Feb. 1, 2017, the D&A Committee unanimously endorses the proposal to

award the “Liquid Matter Prize of the European Physical Society” for 2017 to prof. **Jacob Klein**: “For his transformative contributions to the understanding of soft and liquid matter under confinement: particularly entangled and surface-attached polymers, and liquids in molecularly-thin films.”

On May 5th, 2017, the D&A committee endorsed the following proposals:

For the two Fresnel prizes (fundamental & applied):

- **Fundamental: Chao-yang Lu**, For his outstanding achievement in quantum light sources, quantum teleportation and optical quantum computing.
- **Applied: Cédric Thaury**, LOA (CNRS/École Polytechnique, ENSTA), For his outstanding contribution improving electron beam quality with a single laser pulse in laser plasma accelerators.

For the four thesis prizes (2 fundamental & 2 applied):

- **Fundamental: Bas Jorrit Hensen**, UNSW Sydney, Australia, (Msc in The Netherlands), Long-range entanglement of spins in diamond, unconditional quantum teleportation and the first loophole-free Bell test experiment, resulting in a significant rejection.
- **Fundamental: Marissa Giustina**, Vienna, For the implementation of a loophole-free test of Bell’s inequalities using entangled photons, with an exceptionally high experimental and statistical accuracy.
- **Applied: Achim Woessner**, ICFO: Graphene plasmons are detected electrically and used to build ultra-compact modulators for the first time. This enables applications in biosensing and mid-infrared integrated optics.
- **Applied: Gustavo Villares**, ETHZ, for his contributions to the invention of the quantum cascade laser frequency comb and its application to chip-based mid-infrared dual-comb spectroscopy.
- **Antigone Marino** was awarded the EPS Achievement Award “for her outstanding leadership skills and her active promotion and development of the EPS Young Minds Project”.
- **L.J.F. (Jo) Hermans** was awarded the Gero Thomas medal “for his role as

Science Editor of Europhysics News and his numerous contributions to education and public understanding of physics.”

- **Eugenio Coccia, Luis Miguel de Oliveira e Silva** and **Victor N. Zadkov** were distinguished as EPS Fellows.
- The 2017 Prize for Fundamental Aspects of Quantum Electronics and Optics is awarded to **Niek van Hulst**, ICREA research professor at ICFO, The Institute of Photonic Sciences, Barcelona, Spain. The Prize is awarded to Professor van Hulst “*For pioneering contributions to nano-optics and its applications to molecular spectroscopy and to ultrafast light-matter interactions.*”
- The 2017 Prize for Applied Aspects of Quantum Electronics and Optics is awarded to **Victor Malka**, CNRS research director at the Laboratoire d’Optique Appliquée, Palaiseau, France and Professor at the Weizmann Institute for Science, Rehovot, Israel. The Prize is awarded to Professor Malka “*For pioneering research using ultra-high intensity lasers for laser-plasma accelerators and their applications.*”

The 2017 EPS Early Career Prizes are awarded to:

- **Joseph A. M. Paddison**, for his extraordinary work to achieve understanding of the microscopic nature of complex magnetic states.
- **Samuel D. Stranks**, for his seminal contributions to optical and electronic properties of hybrid perovskites, for their use in high-performance, low-cost photovoltaics and broader optoelectronic applications.

A New EPS prize for Outreach and Engagement was established during Council 2017.

EQUAL OPPORTUNITIES COMMITTEE

Chair: Lucia Di Ciaccio

During 2017 the Equal Opportunity Committee of the EPS has been engaged in several actions aiming to promote a balanced gender representation in physics.

A new member, Els De Wolf, joined the Committee composed of Martine Bosman, Lucia Di Ciaccio (Chair), Nadia Martucciello, Ana Proykova, Elisabeth Rachlew (EPS Executive Committee representative) and Enrique Sánchez (Young Minds Action Committee representative).

In 2017 the EOC pursued two well-established programs: the attribution of the Emmy Noether distinction and the publishing in the electronic newsletter e-EPS, of short portraits with interviews of young female researchers in physics (program called “Visibility for young”).

The Emmy Noether distinction aims to bring to the wider attention of the scientific community, and of the general public outstanding female physicists, identifying them as role models for the young generations of physicists. Nominations may be submitted at any time; a selection committee appointed by the EOC examines them two times per year typically in Spring and in Autumn. News about the winners is published right away in the electronic newsletter e-EPS and on the EPS web site. The 2017 laureates for the Emmy Noether Distinction were:

- **Catalina Oana Curceanu** from the Frascati National Laboratory of the Italian Institute for Nuclear Research (LNF-INFN) for her leading role and contributions in nuclear and hadronic physics experiments,
- **Francoise Remacle** (*University of Liège, Theoretical Physical Chemistry Department, BE*) for outstanding contributions to interdisciplinary domains bridging Physics, Chemistry, and Biology.

The idea that inspired the program “Visibility for Young” is that a young female candidate physicist (student, post-doc or young researcher) may find in the interviews of successful female physicists only few years older, encouraging answers to the questions that she might have about the choice of pursuing or not a career in physics. The program benefits from a close collaboration with the Young Minds Action Committee. In 2017 the portraits of three young researchers have been published: Kumiko Kotera (“Doing beautiful physics without giving up on family, art and the rest of the world”), Gulfem Susosy (“From Turkey to Japan: the

key point is to know what you want”) and Natasha Jeffrey (“Looking at the beautiful Sun and (much) more”). These articles are among the most read on the e-EPS.

In 2017 in collaboration with D/G, the EOC has prepared a monitoring program on the gender participation at conferences with the aim in a longer term of putting in place a conference charter promoting fairness towards women attending and presenting their scientific results at national and international conferences. The program runs over two years starting from the beginning of 2018.

For 2018 additional actions are under consideration as follow-up of the suggestion, raised at the last EPS Council, that an Equal Opportunity Committee should include issues related to diversity. It is also under discussion the project of including ethics issues related to physics.

COMMITTEE ON EUROPE INTEGRATION

Chair: Radu Constantinescu

Composition of the Committee

A first note on the Committee of European Integration of the European Physical Society (CEI-EPS) is that it includes two new members, replacing former members whose mandates expired after two turns of membership. Ana Proykova (Bulgaria) and Guido Martinelli (Italy) were replaced by Alexei Morozov (Russia) and Gertrud Zwignagl (Germany) respectively. So, the present composition of the Committee is (in alphabetic order): Radu Constantinescu, University of Craiova, Romania (chair), Goran Djordjevic, University of Niš, Serbia, Maciej Kolwas, Institute of Physics of the Polish Academy of Sciences, Poland, Dénes Lajos Nagy, Hungarian Academy of Sciences, Budapest, Hungary, Alexei Morozov, ITEP Moscow, Russia, *Sofoklis Sotiriou*, Ellinogermaniki Agogi Pallini, Greece and Gertrud Zwignagl, Institute of Mathematical Physics Braunschweig, Germany.

Strategy and action plan

In accordance with the CEI-EPS strategy accepted in 2013, the activity of the

Committee is oriented towards five main directions aiming to promote physics and the scientific cooperation across South-Eastern and Central (Central-Eastern) Europe. The five directions are: (1) Integrating the access to research infrastructures in Europe; (2) student training through a School Program supported by EPS; (3) Physics education and teachers training; (4) strengthening the regional cooperation among EPS member societies and regional organisations; (5) promotion of physics in the region(s).

Because of the limited resources, the Committee decided to concentrate in 2017 on two of these directions: student training program, and strengthening the regional cooperation among EPS member societies. Two important activities can be mentioned on these actions.

Strengthening the regional cooperation among EPS member societies

An important activity of CEI-EPS in 2017 was jointly organised with the EPS Executive Committee Meeting held in Bucharest, in **2-3 February 2017**. Representatives of EPS physical societies from Central and South-Eastern parts of Europe, as well as members of the Balkan Physical Union were invited, with the aim of sharing information and establishing a common action plan for developing physics in their respective countries. Specific presentations were made by the Bulgarian Physical Society (Alexander PETROV), the Hellenic Physical Society (Paraskevi KLEIDERI), Hungary – Eotvos Lorand Physical Society (Balazs UJFALUSSY), Macedonia - Society of Physicists (Riste POPESKI-DIMOVSKI), the Moldovan Physical Society (Viorel CIORNEA), the Serbian Physical Society (Goran DJORJEVIC), the Romanian Physical Society (Victor Nicolae ZAMFIR), the Turkish Physical Society (Gulfem SUSOY DOGAN), and the Ukrainian Physical Society (Igor ANISIMOV). The discussions focused on specific issues: quality of physics, research funding, education, international cooperation and European participation. Possible synergies of EPS with other structures from the region, as BPU and SEENET-MTP, were also explored.

EPS School Program for PhD students

Another important activity supported in 2017 by CEI-EPS, together with CERN and ICTP, was the School for PhD students “New Trends in High Energy Theory”, held in Sofia (Bulgaria), 15–22 October, 2017. The main topics were String Theory and Black Holes, with an accent on Holography. The lectures and the seminars were coordinated by high level specialists from CERN, ICTP Trieste, Aristotle University Thessaloniki, DIAS Dublin, KU Leuven, University of Niš, West University of Timisoara and the host institution - University of Sofia. The school was attended by 26 students from 6 countries.

The PhD school in Sofia was the fourth training event since 2015, organised in a general program jointly initiated by SEENET-MTP and CERN and the first one in 2017, partially supported by EPS. The EPS support came at a very important moment to increase number of students and their geographical and gender distribution. The next School is announced to be held in Niš (Serbia), in June 2018 with about 50 students and it will be supported, on the base of the decision made by the EPS Council held in Erlangen, April 2017.

Representation of CEI-EPS in other events

During 2017, members of CEI-EPS represented the Committee to other meetings held under the EPS aegis, as follows:

EPS Council from Erlangen, March 31 – April 1, 2017.

CEI-EPS was represented by R. Constantinescu, G. Djordjevic. There were discussions on the projects proposed by various organisations from the member states to be supported by EPS. Among the selected projects the project proposed by SEENET-MTP, “Develop a series of seminars for the next generation of researchers in theoretical physics” was accepted to be financed through CEI-EPS.

Informal Physical Societies Exchange Conference (IPSEC XI), Wroclaw, September 11, 2017

CEI-EPS was represented by Maciej Kolwas, who was the chair of one of the sessions

of the meeting. Representatives from 8 Physics Societies from Europe and other two societies, from China (Taiwan) and respectively from Japan, presented the situation of Physics in their countries and explored the possibilities of strengthening their cooperation. How to increase the participation in physical societies of physicists working in industry and commercialisation of the scientific research across the world (Japan, China, UK, Poland, Slovakia, Czech Republic) generated exciting discussions.

Action Plan for 2018

In 2018 CEI-EPS will continue its policy of facilitating the exchange of physicists and physics research across Europe, focusing primarily on Central, Eastern & Southern Europe. The main objectives will be, as in 2017, the regional cooperation among researchers and the training of the PhD students. One important event devoted to each of these objectives is planned in 2018:

1. A round table “Research and Education in Physics”, with the participation of CEI-EPS members, of representatives of national Physics societies and of other organisations from Central and South-Eastern Europe, will be held in Sinaia (Romania) in April 2018, included as a distinct event in the program of the conference “Quantum fields and Nonlinear Phenomena”. http://cis01.central.ucv.ro/physics/en/workshop_Sinaia_2018/index.html
2. A new edition of the PhD School Program for young physicists, with the topic *High Energy and Particle Physics: Theory and Phenomenology*, will be held in Niš, Serbia, 3-10 June, 2018. This meeting will be also connected with larger scientific meetings: the Balkan Workshop *Field Theory and the Early Universe*, as well as with several events celebrating 50 years of EPS and 15 years of SEENET-MPT. <http://bs2018.seenet-mtp.info/>

Apart from the two mentioned activities, CEI-EPS intends to also support other events and activities related to the exchange of people or of ideas across Europe: IPSE XII, ICYS 2018, <http://icys2018.com/>, etc.

FORUM PHYSICS AND SOCIETY

Chair: Carlos Hidalgo

The VII EPS Forum Physics and Society meeting, will take place on the 29 September 2018, in Geneva University.

Topic: PHYSICS AND ETHICS FOR SOCIETY IN THE HORIZON 2050

I. Rationale

Although the quest for knowledge in itself is not necessarily susceptible to ethical evaluation, science should abandon its ethical neutrality when it addresses the way knowledge is achieved and the technological applications that affect the needs and desires of individuals and society. This is particularly clear in health research where the interests of science and society should never prevail over the well-being of individuals or research for a sustainable development where the desires of individuals should not prevail over the needs of society and humanity. Furthermore, the development of artificial intelligence will lead us through a fascinating landscape of development as well as ethical considerations. These issues will be the key elements for discussion during the forthcoming “Forum Physics and Society / 2018” to be held in Geneva September 2018.

II. Structure of the meeting

II.a Topical lectures (3 hours) on: Health research, sustainable development, artificial intelligence, physics in living matter, our place in the universe.

II.b Round table discussion (2 hours) to address questions like e.g.

Is science, as a whole, ethically neutral? Should people dedicated to science develop something like a Hippocratic Oath with the promise of using Science solely for the benefit of mankind? What is the role of science to promote a fairer development in the horizon 2050?

II.c Conclusions and drafting of EPS statement (2 hours)

Grand Challenges - Physics for Society in the Horizon 2050 2017 report

The Grand Challenges - Physics for Society EPS action will address the social dimension of science and the grand challenges in Physics to bring radical changes on developed societies, to raise standards of living at global scale and to provide basic understanding of nature in the Horizon 2050. This action will be developed within the framework of the EPS Forum Physics and Society activities in the period 2018 – 2020. The proposal of the project as well as written description with the contents, structure and author guidelines were presented during the Council meeting in April 2017.

In order to move forward with this project a meeting with Division and Groups chairs was held during the EPS Executive Committee in October 2017 at CERN. With the intention that the document fairly reflects the view of EPS Divisions and Groups, we have requested their input on three basic questions:

1. What are the most promising areas of physics research essential to the development of basic knowledge in the Horizon 2050?
2. What are the most promising areas of physics research with important societal applications in the Horizon 2050?
3. Who are the potential authors for the chapters described in the draft proposal?

We have received a positive and active reply from many EPS Divisions / Groups to the Grand Challenge draft manuscript. We deem it necessary to get the required momentum on this EPS action. The document will be updated during the first quarter of 2018.

REPORT FROM THE EPS HISTORIC SITES COMMITTEE

Chair: Luisa Cifarelli

See highlights

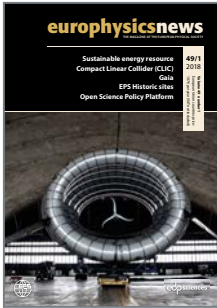
YOUNG MINDS COMMITTEE

Chair: Eva Salvador

See highlights

JOURNALS REPORTS 2017

EUROPHYSICS NEWS (EPN)



Editor:
V.R. Velasco

Science Editor:
Ferenc Iglói

EPN kept its general presentation throughout the year, except that the last two issues were combined into EPN 48/5&6, following the decision by the ExCom. The composition of the production team has remained unchanged.

The size of the “Highlights” section corresponds to slightly over 20% of the available space for editorial material. Now, the maximum number of “Highlights” per issue is 14, except for the special issue. Their total number in 2016 was 63, with 15 “Highlights” in EPN 47/5&6 and 14 “Highlights” in EPN 47/4. Their total number in 2017 was 58 with 13 “Highlights” in EPN 48/1, 14 “Highlights” in EPN 48/2 and 12 “Highlights” in EPN 48/5&6.

The News section is devoted to EPS statements and activities, scientific reports on EPS conferences, prize and award laureates of the Society, *etc.* This information is to be supplied by all bodies of the EPS, *i.e.*, the Executive Committee, Action Committees, Divisions, Sections and Groups. It is the duty of these bodies to keep all EPS Members informed of their activities and EuroPhysics News is made to carry the information. What would the

feelings of a prize laureate be whose name and work remain unknown except for a few people besides the jury? Why limit such information to the Council members when more than 30,000 EPN readers should get it?

Almost all the EPS Historic Sites inaugurated in 2017 have been covered in EPN.

In 2017 we have published 24 Features about different areas of physics, we have 3 articles in the Opinion column, as well as continued the section of Physics of daily life.

EPN 48/5&6, the special issue originally devoted to Gravitational Physics had to be changed, due to unattended developments. It had to be changed to a normal issue with more Features. Nevertheless the discovery of gravitational waves and the award of the Physics Nobel Prize, were covered in detail.

At the same time that EPN is printed, it is made accessible on the web freely and fully since a few years. This makes it available not only to all European physicists, but to everybody in the world. The statistics of the web visits look very encouraging. The web version is basically the same as the printed issue. However, it adds a new degree of freedom by giving space, when needed, to complementary documents such as videos or scientific developments related to a subject that is presented in the printed issue. So far this has only scarcely been used. Another bonus is the flip book pdf version with an html version indexed by Google. This user-friendly flip book is available for all issues (see: www.zyzyne.com/widgetdoc;13732).

The new EPN Science Editor, effective January 1st 2017, is Prof. Ferenc Iglói of the Wigner Research Centre for Physics in Budapest. Ferenc had served as ‘Associate Science Editor.’ We warmly welcome Ferenc, certain that his involvement with EPN will result in the same high-quality output as for the other scientific journals he has been associated with.

The EPN Editorial Advisory Board (EAB) had to bid farewell to Peter Liljeroth and Marc Türler who reached the end of their term. Tero Heikkilä (University of Jyväskylä) joined the team in January 1st 2018. The EAB continues widening the scope of Feature topics as much as possible, recruiting authors increasingly from the borders of physics and other domains. This is progressively achieved by adjusting the composition of the board, upon member replacements, giving priority to *topical* rather than *geographical* distribution. We feel that EPN must primarily be instructive and pleasant to read, rather than reporting from the cutting edge of physics research. In this spirit it was decided, as of 2014, to open a new ‘Crossing Borders’ column as an outreach into the public domain.

The editorial team of EPN, however small, hopes to continue to make an increasingly interesting journal, but needs the help and support of the Council in two ways:

- First, the Council can make suggestions for editorial policy and improvements.
- Second, each Council member can help by providing short information of lasting interest (preferably with pictures) at the wider European scope.

Notes

EPL



Editor in Chief:
Bart van Tiggelen

**Past Editor
in Chief:**
Giorgio Benedek

Publisher:
Ian Trotter

Staff Editor : Frédéric Burr

EPL publishes original, high-quality Letters in all areas of physics, ranging from condensed matter topics and interdisciplinary research to astrophysics, geophysics, plasma and fusion sciences, including those with application potential. The Journal was founded in 1986 by the European Physical Society (EPS), the Société Française de Physique (SFP) and its subsidiary EDP Sciences, the Società Italiana di Fisica (SIF) and the Institute of Physics (IOP). The new journal incorporated *Lettere al Nuovo Cimento* and *Journal de Physique Lettres* and was published by EPS, EDP Sciences, IOP Publishing and SIF for a partnership of 17 European physical societies (the EPL Association). EPL is now available in more than 3300 institutions world-wide and has an Impact Factor of 1.957.

Report of the EPL

Editor-in-Chief: Perspectives

A new Editor in Chief took up his duties in January 2018. The EPLA board of Directors encouraged Editors-in-Chief, Past and Elect, to make the transition as smooth as possible. The publication of perspectives papers (2 per month) as well as 2 Focus Issues per year will be maintained and topics are now being proposed (for the Focus Issue: Complex Systems and Quantum information). Nevertheless, a number of changes have taken place, such as the reduction of the number of Deputy Editors from 9 to 2, and the slight modification of the role. Roughly 25 Co-Editors are to be replaced and this process is now on going. As part of this process we have been aiming to improve the diversity of the board; in terms of geography (with a particular focus on China), gender and age (encouraging

young rising stars) - whilst at the same time keeping a good equilibrium between the important topics in EPL and the competences among the Co-Editors.

Among the challenges for the « new team » is of course the eternal, and so far unsuccessful, attempt to increase the Impact Factor (from 2 to 2.5). Three clear reasons exist why the IF is low: 1) lack of visibility of EPL (no multi-journal platform exist as APS, or EPJ), 2) lots of zero-citation papers are published (around 13 %), among which are many 'sleeping beauties' and 3) broad coverage and interdisciplinarity - this is a brand mark of EPL, but also dilutes the impact of the journal in disciplines such as geophysics, particle physics and astrophysics. Another challenge will be to maintain and improve the (already fast) submission-to-publication time, which is essentially determined by the time it takes to get valuable review reports. Innovative Peer Review is a huge challenge; several options exist, but most come with a price and a risk. Finally, Open Access is an increasingly important development in scientific editing that will need our attention right now. In 10 years' time, the hybrid formula of EPL can no longer exist. Perspective papers and Editors Choice articles are currently made 'free-to-read' upon publication.

Joint Report of the EPL Editorial Office and IOP Publishing

Journal Production

The total number of submissions for 2017 was 1,563; 6% fewer than 2016 but slowing the downward trend of around 12% year-on-year for the past few years. The full total number of articles published in the 2017 volumes was not available at time of writing but is expected to be around 640, representing nearly a 15% decrease on the 2016 figure. The acceptance rate remains ~40%.

Published articles (by first named author) continue to be dominated by China with over 100 articles, although this value has again decreased from the previous year. Countries with over 30 publications follow a similar pattern to previous years: France, India, USA, and Germany. Those with more

than 20 publications include Russia, Brazil, Italy, UK, and Iran.

Categories that obtained the most published articles, and hence are EPL strong topics, include 'mathematical methods' & 'statistical & nonlinear physics' - again representing over 15% of the total. Condensed matter sub-topics, including 'electronic structure' and 'magnetic properties and materials', cover almost 25%. Quantum mechanics, field theories, gravitation, and general and special relativity make up a further 10%. There are also notable smaller contributions from 'biophysical and medical physics' and 'optics', with 5% of articles each.

As a hybrid open access journal (the APC remains at €1,400) EPL is one of the lowest priced, although a large take-up has not been evident. Twelve articles were published in 2017 as open access (two more than 2016), although 3 of these were published at no charge due to a co-author being a co-editor. Fast-tracking of exceptional articles is still available.

The number of printed copies of each issue has been reduced further, with only 65 copies going to print subscribers. Additional copies are printed for legal depositories, marketing, promotion, and back issue supply. There is an ongoing discussion around moving the journal online only, but this will not happen before 2019 at the earliest.

IOPP subscribers continue to replace pack purchases with IOPscience licences and consortia agreements. At the end of 2017 there were 3,318 institutions with direct access to EPL articles through IOPP with a further 138 standalone subscribers through EDPS. The number of standalone subscribers (through EDPS) is expected to decrease each year as institutes opt to become part of a consortium with an IOPscience licence.

EPS Young Minds award

EPL provided the Best Activity Award (€500) at the annual EPS Young Minds event. This year the award went to the Vilnius Section, Lithuania. The section organised a 4-day conference in Vilnius with over 300 presenters from 20 countries, covering a wide range of topics and many other related activities.

EPS SNPD and Europhysics Prizes

Earlier this year, the EPS Statistical and Nonlinear Physics Division (SNPD) (chaired by Christian Beck) created two new prizes for that division. The EPS-SNPD Early Career Prize is co-sponsored by EPL. The 2017 prize was awarded to Laura Foini “for her outstanding research contributions in the field of glassy systems and nonequilibrium dynamics of isolated quantum systems.” and to Edgar Roldan “for his outstanding research contributions at the interface of stochastic thermodynamics and biophysics.” The awards were presented at an event in Krakow in early September, during a special session with two EPL-invited speakers (Gregory Schehr and Pierpaolo Vivo), followed by a wine and snack reception.

In 2018, the EPS Condensed Matter Division’s prestigious Europhysics Prize will again be sponsored by EPL, with a reception afterwards.

Marketing & Promotion

Summaries of selected Editor’s Choice articles regularly appear in issues of Europhysics News and are available online and in print in a preface to the first issue of each of the four annual volumes of EPL. ‘Featured in EPL’ is also included in each alternate e-EPS Newsletter issue. Printed booklets containing “Highlights of 2016” (containing Editor’s Choice, open access, Perspectives, most downloaded, and some other notable articles) were available on exhibition stands

at over 200 events throughout the year. An online listing is also available with full text of all these articles available for download free throughout the year. The “Highlights of 2017” booklet is complete and should be available in circulation in early March.

The total downloads for 2017 reached almost 637,000 (reflecting a 7% rise on 2016). Although a positive trend, this growth is primarily due to an increase in the number of downloads to the EPL article archive (articles published before 2017) and the average downloads per article for 2017 dropped slightly to 123, from 170 in 2016. Editor’s Choice articles, of which 48 were published in 2017, received on average 609 downloads per article, which is indicative of the high quality of these articles selected by Co-Editors. Editor’s Choice, open access and Perspective articles are all set as ‘free-to-read’ upon publication, and therefore dominate the download tables.

Perspectives and Invited Research Articles published in 2017 averaged 1,785 downloads per article. These highly readable mini-review articles, selected by the Editor-in-Chief on topics of current interest, are providing excellent promotion for the journal. Both initiatives of the outgoing Editor-in-Chief will continue to be actively supported by the new EiC in 2018.

Download distribution is 16% to China and 15% to the USA; 7% to Germany; 5% to India and 4% Japan and UK, 3% France. It is encouraging to see North American

institutes, led by California University - Berkeley and MIT in the list of top downloading institutes. Tokyo University and China University of Science and Technology lead this table. The number of downloads to unregistered addresses (non-institutes, mobile laptops, home networks, *etc.*) has been increasing (typical for many journals) to around 23% of the total.

Quarterly newsletters have been emailed to thousands of recipients targeted for their interest in the content. The most recent issue was distributed in early January. These mailshots highlight specific published articles, sponsored award winners, short biographies of selected Co-Editors, forthcoming events where EPL may be present, and links to other items of interest. Marketing campaigns use a variety of social media resources to promote the journal, including EPL’s own Twitter account. This account provides us with an excellent opportunity to increase engagement with authors and visibility of EPL content within the physics community.

In 2017, €13,600 was awarded at 16 events to young researchers. Support was provided either as awards to individuals for best poster/oral presentations or as general conference support to cover travel, subsistence, or registration costs. EPL visibility is strong with a logo placed on the conference website (linked to the EPL homepage) and often included on material in delegate packs. At several events, a short presentation on EPL was possible during the award ceremony.

EUROPEAN JOURNAL OF PHYSICS (EJP)



Editor in Chief:
Michael Vollmer

Associate publisher
IOP Publishing:
Iain Trotter

Executive summary

IOP Publishing is very pleased to report to the council another very successful year in 2017 for European Journal of Physics (EJP). Consolidating the developments of the past couple of years, 2017

has seen increased engagement with the international physics education community through events and targeted marketing, in addition to further growth in our Review article collection, with varied and exciting additions to our series of focus issues. With the expanded publishing team now firmly established and working closely with the Editor in Chief and Editorial Board, we are continuing to offer excellent customer service and competitor-beating processing times – despite another significant increase in submitted articles. From this firm foundation, we have been able to engage more with

strategically important areas through attendance at events in China and the US whilst maintaining our traditionally strong position in Western Europe – already reflected in the positive submission and download figures.

Editorial activity

The editorial board continues to offer invaluable support to the journal; whether acting as Guest Editors for focus issues, contributing and commissioning high quality content, and promoting the journal at events. We were very pleased to welcome Ping Zhang, Professor of Physics at Beijing

Article Type	SUBMISSIONS (BY RECEIVED YEAR)						ACCEPTANCES (BY FINAL DECISION YEAR)					
	2012	2013	2014	2015	2016	2017	2012	2013	2014	2015	2016	2017
Papers	731	712	731	663	651	778	164	146	143	196	224	206
Letters	32	42	33	40	26	15	5	6	4	13	2	0
Reviews				15	19	23				2	3	7
Special Issue /Focus on	2	13	9	12	34	14	3	13	4	3	20	14
Other	22	11	12	14	31	30	17	7	5	9	19	15
Total	787	778	785	744	761	860	189	172	156	223	268	242

Normal University, to the board, and look forward to working with her more closely in 2018.

Following on from the publication of our first Review article at the end of 2015, and a further three last year, EJP has added 7 articles to the series in 2017. Reflecting the interdisciplinary nature of modern physics, these new reviews cover topics ranging from condensed matter and materials, to geophysics, complex systems and quantum information. Following the successes of the initial focus issue 'Advanced Optics' (closed in early 2017) and 'Physics of Sport' (ongoing, launched in 2016), this year saw the launch of two exciting new issues. Acknowledging the importance of the Physics Education Research community to the journal, EJP opened its first

PER-based issue 'Focus on Modelling in Physics Instruction', and will publish a number of commissioned perspectives from leading researchers in the field. The second issue, 'Focus on Complexity', will build on the well-received review article of the same theme and aims to support and shape the teaching of this relatively young area of interdisciplinary research.

The continued strong performance of the journal is illustrated in the submissions and acceptance figures for 2017. The submission figures for 2016 were underreported in last year's report, and in fact were in more in line with previous years. However, 2017 has seen a marked increase in submissions, reflecting the strategy in raising the profile of the journal through direct marketing and presence at international events.

Despite this growth, the EJP publishing team continues to offer excellent customer service, with consistently quicker peer-review processing and production turnaround than its direct competitors. After a record total for acceptances in 2016, and exceptional growth over the past two years, this year has seen the stabilise at this higher level. Our ongoing strategy for the next few years is steady, manage growth whilst maintaining our high quality standards.

Article download figures show another significant increase (29%) on last year, with more well performing articles contributing to the total rather than a few exceptional cases. We feel that this again validates our marketing approach of mixing tailored direct contact and daily social media interaction with an engaged audience. In 2017: 58,617 Downloads of 2017 EJP content and 294,850 Total Downloads of all EJP content.

Marketing activity

2016 Highlights campaign

Our annual Highlights collection was made available in March. This popular campaign of outstanding papers from the previous year were once again highly received by researchers. All articles in the collection were made free to read online until the end of the year, and promoted via email to all IOPP Education contacts to help and encourage usage and citation of this quality content. In addition to this, certificates were created and sent to the featured authors in PDF format, to encourage them to submit future work to the journal.

The Highlights can be found online at <http://iopscience.iop.org/journal/0143-0807/page/Highlights-of-2017>

ARTICLE TITLE	VOLUME	ISSUE	ONLINE DATE	DOWNLOADS
The German Physics Olympiad—identifying and inspiring talents	38	3	08/02/2017	2,498
Manipulating particles with light: radiation and gradient forces	38	3	09/03/2017	2,368
Flow visualisation of downhill skiers using the lattice Boltzmann method	38	2	29/12/2016	2,222
The macroscopic pancake bounce	38	1	13/12/2016	1,550
Developing and validating a conceptual survey to assess introductory physics students' understanding of magnetism	38	2	29/12/2016	1,503
Space shuttle's lift-off: a didactical model	38	4	15/06/2017	1,292
Four easy routes to the Lorentz transformations: addendum to 'Lorentz transformations and the wave equation'	38	1	09/11/2016	1,200
Alternative routes to the retarded potentials	38	5	16/08/2017	1,153
Do it yourself: make your own thermoacoustic engine with steel wool or rice	38	1	02/11/2016	1,099
Investigating and improving introductory physics students' understanding of the electric field and superposition principle	38	5	26/06/2017	988

E-EPS

Editor: A. Bracco - Technical Editor : G. Gunaratnam

Overview since the creation in May 2011

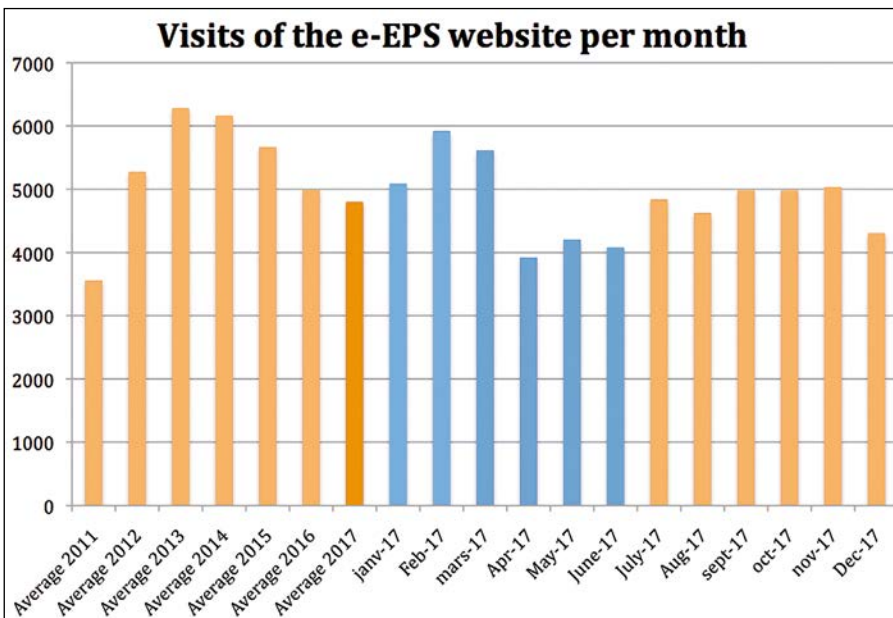
	2011	2012	2013	2014	2015	2016	2017
visits on the website	32031	63530	75370	73934	68009	59876	57616
subscribers	*	38160	35433	33732	33501	33471	33448
articles published	160**	244	240	209	216	206	213
comments	15	44	53	91	7	7***	0

* unknown statistics ** newsletter started in May 2011 *** comments deactivated in September 2016



Statistics of the 2017 issues

MONTH	VISITS OF THE E-EPS WEBSITE PER MONTH
Average 2011	3559
Average 2012	5278
Average 2013	6281
Average 2014	6161
Average 2015	5667
Average 2016	4990
Average 2017	4801
Jan-17	5088
Feb-17	5920
Mar-17	5618
Apr-17 *	3921
May-17	4205
June-17	4084
July-17	4839
Aug-17	4624
Sept-17	4986
Oct-17 **	4986
Nov-17	5035
Dec-17	4309



* April 2017: maintenance on university server. Mass mailing sent out late in the night.

** Sept/Oct 2017: problems to send out the mass mailing. Only one part of the mass mailing was sent out in September. The main part was sent in October.

Most read articles in 2017 (>600 visits)

TITLE	VIEWS
Kumiko Kotera: doing beautiful physics without giving up on family, art and the rest of the world	937
Two Prestigious Prizes in Quantum Electronics and Optics awarded	758
HEP2017	754
Editorial – 2017 Nobel Prize for Physics to Gravitational Waves	717
The EPS Statistical and Nonlinear Physics Division is happy to announce the winners of its two 2017 prizes	717
VIRGO and LIGO together, in quest of gravitational waves	656
EPS Condensed Matter Division: CMD 27 – DPG Spring meeting: call for session proposals	654
International Day of Women and Girls in Science	651
EPS Physics Education Division Award for Secondary School Teaching 2017 goes to Dr Jozef Beňuška	648
EPS Emmy Noether Distinction Spring-Summer 2017 for Women in Physics	628
EPS Accelerator Group announces 2017 prize-winners	607

Conferences Organised in 2017

CONFERENCE	PLACE	PARTICIPANTS	DIVISION/GROUP
EGAS-49	Durham, United Kingdom	200	Atomic, Molecular and Optical Physics
Liquid Matter Conference	Ljubljana, Slovenia	650	Condensed Matter Division
Ultra-Low Temperatures	Heidelberg, Germany	180	Condensed Matter Division
ECOSS 33	Szeged, Hungary	357	Condensed Matter Division
Tri-annual SPD meeting	Budapest, Hungary	222	European Solar Physics Division
EGU/EPS session	Vienna, Austria	Low	Environmental Physics Division
EPS HEP International Conference	Venice, Italy	969	High Energy and Particle Physics
Nuclear Physics in Astrophysics VIII	Catania, Italy		Nuclear Physics Division
1 st Conference on Biology for Physics	Barcelona, Spain	160	Physics in Life Sciences
European Physics Education Conference (GIREP-EPEC)	Dublin, Ireland	270	Physics Education Division
44 th EPS Conference on Plasma Physics	Belfast, United Kingdom	673	Plasma Physics Division
NANOMETA	Seefeld, Austria	224	Quantum Electronics and Optics
CLEO/Europe EQEC 2017	Munich, Germany	1912	Quantum Electronics and Optics
Crossroads in Complex Systems	Mallorca, Spain	200	Statistical & Nonlinear Physics Division
Dynamics Days	Szeged, Hungary	150	Statistical & Nonlinear Physics Division
Sigma-Phi conference	Corfu, Greece	250	Statistical & Nonlinear Physics Division
1 st EPS Statistical and Nonlinear Physics conference	Krakow, Poland	200	Statistical & Nonlinear Physics Division
IPAC17	Copenhagen, Denmark	1588	Accelerator Group
XXIX IUPAP Conference on Computational Physics 2017	Paris, France	149	Computational Physics Group
ATTRACT	Tripoli, Greece	30	Technology and Innovation Group
EUCARD	CERN, Switzerland	73	Technology and Innovation Group

Prizes Awarded in 2017

PRIZE	LAUREATE	DIVISION
Liquid Matter Prize	Jacob Klein	Condensed Matter Division
ESPD PhD Thesis Prize	Clara Froment	European Solar Physics Division
ESPD Early Career researcher	Natasha Jeffrey	European Solar Physics Division
ESPD Senior Prize	Manfred Schüssler	European Solar Physics Division
ESPM Student Poster Prize	David Korda	European Solar Physics Division
2017 High Energy and Particle Physics Prize	Erik H.M. Heijne, Robert Klanner, and Gerhard Lutz	High Energy and Particle Physics
2017 Giuseppe and Vanna Cocconi Prize	Rainer Weiss, Kip S. Thorne and Barry C. Barish	High Energy and Particle Physics
2017 Young Experimental Physicist Prize	Xin Qian	High Energy and Particle Physics
2017 Gribov Medal	Simon Caron-Huot	High Energy and Particle Physics
2017 Outreach Prize	Michael Hoch	High Energy and Particle Physics
2017 Special Prize	René Brun	High Energy and Particle Physics
Secondary Teacher Award	Jozef Beňuška	Physics Education Division
EPEC Best Poster Prize	Alessandra Lanzini	Physics Education Division
Alfvén Prize	Ksenia Razumova	Plasma Physics Division
Innovation Prize	Michel Moisan	Plasma Physics Division
PhD Research Award	Students from Oxford, Pisa and Madrid	Plasma Physics Division
PPD Poster Prizes	Students from Belfast, Garching, Lisbon	Plasma Physics Division
EPS-QEOD Prize Research into the Science of Light	Albert Polman	Quantum Optics & Optics Division
2017 Quantum Electronics and Optics Prizes	Niek van Hulst, Victor Malka	Quantum Optics & Optics Division
2017 Fresnel Prize	Lu Chao-yang, Cédric Thauray	Quantum Optics & Optics Division
QEOD Thesis Prize	Hensen, Bas Jorrit, Giustina, Marissa, Woessner, Achim, Villares Gustavo	Quantum Optics & Optics Division
EPS DPL Young Researcher Prize		Physics in Life Sciences
OptoAndina		Physics for Development
Rolf Widerøe Prize	Lyndon Evans	Accelerator Group
Gersh Budker Prize	Pantaleo Raimondi	Accelerator Group
Frank Sacherer Prize	Anna Grassellino	Accelerator Group
PhD Student Prize	Bruno Touschek	Accelerator Group
EPS Achievement Award	Antigone Marino	EPS
Gero Thomas Medal	Jo Hermans	EPS
The Emmy Noether distinction for Women	Catalina Curceanu	EPS

Atomic Molecular and Optical Physics Division



Chair

- Joachim Burgdörfer

Sections

- Electronic and Atomic Collisions
- Chemical and Molecular Physics
- European Group on Atomic Systems

Conferences

- European Conference Atomic and Molecular Physics (ECAMP)
- European Group on Atomic Systems Conference (EGAS)

Prizes

- EPS Young Scientist Prize in Atomic Molecular and Optical Physics

Website

- www.eps.org/eps-amopd

Gravitational Physics Division



Chair

- Mairi Sakellariadou

Conference

- No conference so far

Prizes

- No Prize so far

Website

- <http://www.eps.org/group/GPD>

Condensed Matter Division



Chair

- Kees van de Beek

Sections

- Liquids, Macromolecular Physics, Magnetism, Structural and Dynamical Properties of Solids
- Semiconductors and Insulators, Surfaces and Interfaces

Conferences

- Liquid Matter Conference
- Ultra-Low Temperatures
- ECOSS 33

Prize

- EPS CMD Europhysics Prize
- Liquid Matter Prize
- Young Researchers Prize

Website

- www.eps.org/eps-CMD

High Energy And Particle Physics Division



Chair

- Barbara Erazmus

Conference

- HEP General Conference

Prizes

- High Energy and Particle Physics Prize
- Young experimental Physicist Prize
- Gribov Medal
- Outreach Prize
- Giuseppe and Vanna Cocconi Prize

Website

- <http://eps-hepp.web.cern.ch/eps-hepp/>

Environmental Physics Division



Chair

- Herbert Fischer

Conferences

- Common EGU/EPS session at the EGU General Assembly

Prize

- In the area "Environmental Physics" a large number of international prizes are awarded regularly. As a consequence a sponsor for a new prize could not be found up to now

Nuclear Physics Division



Chair

- Faiçal Azaiez

Conferences

- EPS Nuclear Physics Division Conference
- Nuclear Physics in Astrophysics

Prizes

- IBA Europhysics Prize (Applied Nuclear Science and Nuclear Methods in Medicine)
- PhD Prize in Nuclear Physics
- Lise Meitner Prize (Nuclear Science)

Website

- <http://www.eps.org/group/NPD>

More about EPS divisions:
http://www.eps.org/members/group_select.asp?type=8719

Plasma Physics Division



Chair

- Richard Dendy

Sections

- Beam Plasma and Inertial Fusion Section
- Dusty and Low Temperature

Conference

- EPS Plasma Physics Division Conference

Prizes

- EPS-PPD Hannes Alfvén Prize
- EPS-PPD PhD Research Award
- EPS-PPD Innovation Prize
- EPS-IUPAP Student Poster Prize

Website

- <http://plasma.ciemat.es/eps/>

Quantum Electronics And Optics Division



Chair

- Giulio Cerullo

Conferences

- Nanometa
- CLEO/Europe – EQEC

Prizes

- EPS Quantum Electronics Prize
- Fresnel Prize
- 4 QEOD Thesis Prizes
- Research in Laser Science and Applications Prizes
- Travel grants Student Awards

Website

- <http://qeod.epsdivisions.org/>

Physics Education Division



Chair

- David Sands

Conference

- European Physics Education Conference (GIREP-EPEC)

Prize

- EPS PED Secondary Teaching Award
- EPEC Best Poster Prize

Website

- www.eps.org/group/PED

Solar Physics Division



Chair

- Eduard Kontar

The JSPD is a joint Division with the European Astronomical Society (EAS) and the European Physical Society (EPS)

Conference

- European Solar Physics Conference

Prizes

- Senior Prize for distinguished, world-renowned solar physicists
- Young Scientist / Postdoc Prize
- PhD Student Prize

Website

- www.eps.org/group/ESPD

Physics in Life Sciences Division



Chair

- Felix Ritort

Conference

- 1st Biology for Physics Conference

Conference

- DPL Young prize
- Poster Prize

Website

- www.eps.org/group/DPL

Statistical And Nonlinear Physics Division



Chair

- Christian Beck

Conferences

- Crossroads in Complex Systems
- Dynamics Days
- Sigma-Phi conference
- 1st EPS Statistical and Nonlinear Physics conference

Prizes

- First award of the Statistical and Nonlinear Physics prize
- Early career prize

Website

- www.eps.org/group/SNPD

More about EPS divisions:
http://www.eps.org/members/group_select.asp?type=8719

Accelerators Group



- Chair**
- Mike Seidel
- Conference**
- International Particle Accelerator Conference
- Prizes**
- EPS Accelerator Rolf Widerøe Prize for outstanding work in the accelerator field
 - EPS Accelerator Gersh Budker Prize for recent significant contributions
 - EPS Accelerator Frank Sacherer Prize for an individual early career researcher for recent significant contributions
 - EPS Accelerator Prize for PhD or equivalent for the quality of their work
 - EPS Accelerator Prize for student poster
- Website**
- <http://www.eps.org/group/EPS-AG>

Computational Physics Group



- Chair**
- Alex Hansen
- Conferences**
- Conference on Computational Physics
 - Biennial Granad Seminars in Computational Physics
- Prize**
- Berni Alder CECAM prize
 - Young Scientist Prize
- Website**
- <http://phycomp.technion.ac.il/~EPS-CPG/>

Energy Group



- Chair**
- Jozef Ongenar
- Conference**
- National Energy Group Seminar
 - European Energy Conference
- Prize**
- Nihil
- Website**
- <http://epsenergygroup.eu/frontend/index.php>

History Of Physics Group



- Chairman**
- Karl Grandin
- Conference**
- The Nobel Prizes and the public image of science
 - XVIII Universeum network
 - joint symposium by the EPS/HoP Group with Echophysics and with the Christian Doppler Foundation
 - Joint annual meeting of the Swiss (SPG) and Austrian (OPG) Physical societies
- Prizes**
- PhysicsEstoire prize
- Website**
- <http://www.ehphysg.eu/>

Physics For Development Group



- Chairman**
- Joe Niemela
- Prize**
- Poster prizes for OptoAndina
- Website**
- <http://www.physdev.org>

Technology and Innovation Group



- Chairman**
- Markus Nordberg
- Conference**
- Technology and Innovation Workshop
- Website**
- Under construction

Notes



European Physical Society

6, rue des Frères Lumière · 68200 Mulhouse · France
tel: +33 389 32 94 40 · fax: +33 389 32 94 49
website: www.eps.org
