

# **ACTIVITY REPORT 2023**

**Presented to EPS Council, 27 March 2024**



**European Physical Society**

more than ideas



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| President's Report | **Luc Bergé** |

## INTRODUCTION FROM THE PRESIDENT

**2023** was the year ending my presidency. On this occasion I am very proud to summarize here the developments of the EPS since our last Council in Porto. These owe a lot to the regular activity of the members of our committees and working groups, the important activities of which I summarize below.

A first working group was involved in actions directed towards the industrial world and the recruitment of Associate Members. After developing the business web platform epsconnect.org for their service last year, it was decided to transfer the activities of this successful working group to those of the Technology and Innovation Group. We had the pleasure of ending the year with the request by the Austrian Academy of Sciences to officially become a Supporter Associate Member of the EPS, which then becomes the 5<sup>th</sup> Associate Member recruited during the last three years.

A second working group, born with the “Rencontres Physique Entreprise Recherche” organised in Paris, France, in 2021, naturally developed into the programme and organisation committee of

the first Forum held in 2022 at Sorbonne University. After the success met by this event, the Executive Committee of the EPS decided to organise a second edition of the EPS Forum in Berlin, Germany, in March 2024. The second edition of the EPS FORUM took place at the Henry Ford Building of Freie Universität Berlin (FUB), between the 25<sup>th</sup> and 27<sup>th</sup> of March 2024.

The EPS Forum is a three-day international meeting of interest to all European researchers, PhD students and Postdocs who wish to be introduced to the exciting research opportunities available in large companies and start-ups. It also hosts a general conference in physics led by high-profile scientists. For the Forum 2024, we had the pleasure to listen to prestigious plenary speakers including European Commissioner Iliana Ivanova, the Nobel Laureates Anne L’Huillier, Klaus von Klitzing, Stefan Hell and the ERC Scientific Council representative Nicola Spaldin.

Outstanding presentations and round tables addressed the following topics: Atomic, molecular and optical physics for quantum technologies; Applications of nuclear and particle physics to society; Condensed matter and applications to industry; Energy management, pollution and climate; Artificial intelligence, brain inspired processing systems and applications, and Photonics.

The first day (“Physics Meets Industry”, March 25<sup>th</sup>) was dedicated to the employment of early career physicists in Europe and fostered direct exchanges with stakeholders of major industrial companies in the above fields. The second day (“Fundamental Physics”, March 26<sup>th</sup>) hosted a general conference on physics in the same fields, addressed from a more fundamental perspective and featuring outstanding

scientists. The third Day (March 27<sup>th</sup>) was devoted to the EPS Council, where we are delighted to welcome a contribution from 2024 APS President, Young-Kee Kim.

Many representatives of industry and applied research accepted our invitation to participate in the Forum, including, among others, INFN, CEA, CERN, DLR, Airbus Defense and Space, GSI/FAIR, IBM Zürich, Quside, Q.ANT, WACQT, EXAIL, NVision, NuPECC, CAEN, Pulsed, Springer, Fermiologics, DANFYSIK, Attocube Systems AG, G2-Zero, Spin-Ion, Kuitra, Daphne Technology SA, Vexlum, Menlo Systems, Quix, LIGENTEC SA, Nanogune and Vanguard Automation. The preparation of this major event required 11 monthly preparatory meetings involving about 40 representatives of different Member Societies, Divisions and Groups, Associate Members and members of the EPS Executive Committee (23 participants per meeting on the average). This also led to an efficient cooperation with the EPS Young Minds and the International Association of Physics Students (IAPS). On the whole we had the pleasure to welcome over 370 participants, including 70 invited speakers and round table panelists and attracted 64 poster submissions, 25 exhibitors and sponsors. This year the EPS supported the participation of 100 students among the 184 student attendees. In addition, the EPS Young Minds (YM) held a very successful Leadership Meeting. Possible future editions of the Forum will need to analyze the complete figures of the income/expenses balance and the overall workload required for the 2024 EPS Forum.

A third working group, mainly composed of members from the Physics for Development Group and from the European

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Integration Committee, actively took in charge our initiatives to help researchers working in low-income countries cooperate with European and US laboratories, while we continued to support many initiatives led by various national physical societies of Central and Eastern Europe. In partnership with the American Physical Society (APS), the EPS and the International Centre for Theoretical Physics (ICTP) at Trieste, we received 44 applications for the second campaign of the APS-ICTP-EPS Travel Award Fellowship Programme (ATAP). This programme grants two-month visits for early-career researchers, who can lead world-class research by returning in particular to the laboratories of their alma mater, using facilities they are familiar with. Another initiative was to support the implementation of training workshops on solar photovoltaics in Africa, which successfully developed in Togo, Madagascar and Niger. We also reinforced our partnerships with the Balkan Physical Union (BPU) through different events, including workshops on physics in Balkans and support to the Balkan Physics Olympiads. We shall moreover support the 5<sup>th</sup> UFPLP conference organised in Coimbra in September 2024 and help the participation of Portuguese-speaking African colleagues. All these events are coherent with our commitment with the International Year of Basic Sciences for Sustainable Development (IYBSSD), the closing ceremony of which took place at CERN, Geneva on December 15, 2023. We are glad to learn that this international year will turn into an international decade of sciences for sustainable development, for which the EPS will continue to be an active supporter.

In September and October 2023, the EPS actively participated in several events organised by our colleagues from Central and Eastern Europe, namely, the 3<sup>rd</sup> Hands-on EPS-TIG Event in Petrovac, Montenegro; the 39<sup>th</sup> International Physics Congress of the Turkish Physical Society in Bodrum, Turkey; the 48<sup>th</sup> Polish Physicists Congress in Gdańsk, Poland and the 45<sup>th</sup> Lithuanian National Conference of Physics, Vilnius, Lithuania. Furthermore, the EPS was invited by the Secretariat of the International Atomic Energy Agency (IAEA) to be

represented as an observer at the 67<sup>th</sup> ordinary session of its General Conference held in Vienna, Austria, in September 2023 and I had the honour to give a plenary lecture for the Taiwan Top Science Student in December of the same year.

Importantly, since the last Council in Porto, our links have been strengthened with the Ukrainian community, following the unprovoked Russian invasion that began in February 2022. We were able to fund the participation of four Ukrainian scientists in the 48<sup>th</sup> Polish Physicists Conference in Gdańsk. Since June 2023, we have maintained regular exchanges with representatives of the Ukrainian Physical Society and proposed to help their members through various initiatives such as the exemption of paying EPS membership fees, spreading news from the Ukrainian community, envisaging the recognition of Ukrainian physics journals by the EPS, going on supporting the participation of Ukrainian researchers and physics students in EPS-sponsored conferences. Reacting in phase with the political crisis, the EPS Executive Committee also published two statements in 2023, one about the events in the Middle-East dating from October 7, 2023 and another one about the recommendation of not organising the International Physics Olympiads in Teheran, Iran.

A last (but not least) working group finally allowed us to prepare and validate a global revision of our Constitution and By-Laws voted on during an extraordinary Council meeting on November 24, 2023. This revision was necessary to modernise and simplify the statutes of our Society. In parallel, a significant work was carried out to clarify and update the legal-financial structures of the EPS. We thank the EPS bodies (Member Societies, Divisions and Groups) for successfully accompanying us along this process.

Besides, our Young Minds (YM) were (again) very successful in holding their 11<sup>th</sup> Leadership Meeting in Naples on the 19<sup>th</sup> of May. In 2023 8 new local sections were established, which thus completes the overall landscape of 73 active sections distributed in 33 countries. Each of these sections is entitled to apply an Activity Grant twice a year (1000 € per section), the grants

support activities in outreach, networking and professional development. This year the number of Activity Grants applications and the number of Young Minds Conference Awards applications, providing support for meetings organised by the Young Minds sections, retained the levels seen in 2022. This indicates a sustainable level of activity not a post covid spike.

The EPS Historic Sites programme was also fruitful in 2023 with the inauguration of 5 new historic sites (HS) thanks to the Historic Site Committee, namely, the Racah Institute, Jerusalem, Israel; the Faculty of Physics at the Alexandru Ioan Cuza University of Iași, Romania, Milutin Milanković's office at University of Belgrade, Serbia; Bernoulli's physics cabinet, Basel, Switzerland and the Institut de Physique Nucléaire (IPN), Orsay, France.

Finally I would like to thank our Divisions and Groups for their exceptional work in preparing world-leading successful conferences in 2023: 18 major conferences were organised in the main disciplines of physics. I also congratulate the 2023 laureates of EPS prizes and distinctions for their outstanding achievements in physics. The EPS highly appreciates the work engaged by the Divisions and Groups in identifying individuals and their research that contribute to the development of physics. In the past year 34 outstanding physicists were awarded our prestigious prizes. Our publication activities finally underwent new developments with, in particular for EPL, the replacement of the editor-in-chief and several co-editors.

Before leaving my position of EPS President, I would like to emphasise that these achievements would not have been possible without the exceptional work of the EPS Secretariat members in Mulhouse and of our policy officer in Brussels, without all the dedicated work of the various EPS Committees, that of the members of the Executive Committee and without the wise recommendations of our Council Delegates.

I wish all the possible success to my successor, Mairi Sakellariadou, and know that she will provide the right guidance for the EPS.

Thank you and long live the EPS! ■

## Honorary Secretary's Report | Ian Bearden and Anne Pawsey |

**EXECUTIVE COMMITTEE ACTIVITIES 2023**

The Executive Committee of the European Physical Society (EPS) develops the EPS policy, discusses ongoing activities, financial matters, future plans, and puts in practice effective strategies to improve the visibility and impact of the EPS. The committee is chaired by the EPS President Luc Bergé.

The dual projects to ensure that the EPS accounts conformed to French norms and that the EPS Statutes and Bylaws accurately represented the way the society functions meant that 2023 had an unusually high number of Council and Executive Committee meetings.

Two extra-ordinary council meetings were held, one in March 2023 to close the 2021 accounts and discuss the proposed modifications to the Statutes and a second in November to vote on the resulting changes. This programme of formal activities also increased the number of executive committee meetings, both to prepare for the council and in support of the new Secretary

General. The committee met three times in person (January, May, September) and twice online (March, November).

The standard Council meeting involved the election of a new Executive committee and President-elect who took office in May. Each member of the committee is responsible for maintaining links to Divisions, Groups and Member Societies. These links are summarised in the table below.

The Executive Committee employs the Secretary General; in this role the Honorary Secretary Ian Bearden and the Honorary Treasurer Stuart Palmer carried out Anne Pawsey's first annual review in November 2023.

The new Executive Committee has revived two action committees, the Distinctions and Awards Committee chaired by Anna di Ciaccio with Luisa Cifarelli and the Publications Committee chaired by Ian Bearden.

The members of the executive committee continue to participate in Working

Groups. In 2023, WG5 completed its work with the update of the EPS Constitution and By-Laws. WG3 which is focused on international development and European Integration supported the transformation of the International Year of Basic Sciences for Sustainable Development into an international decade, in particular the working group wishes to support actions in Africa. The APS-EPS-ICTP-FECS ATAP travel fellowship continues to be a success, with the number of applications increasing from 11 to 44. The contribution of FECS allowed four fellowships to be awarded. Next year is the final year of this pilot programme.

Members of the Executive Committee were also active in the EPS Forum Committee which then transformed into the Forum Programme Committee in January 2023. The entire Executive Committee has been involved in financial and policy decisions related to this second edition of the event. ■

EX. COM. MEMBERS	COMMITTEE, DIVISION, GROUP, PUBLICATION	MEMBER SOCIETY
Ian Bearden	Equal Opportunities Nuclear Physics Division History of Physics Group Europhysics News	Denmark, Estonia, Finland, Latvia, Lithuania, Sweden
Christian Beck	EPS Conferences Committee Statistical and Non-linear Physics Division Computational Physics Group	Israel, Slovenia, Turkey
Roberta Caruso	Quantum Electronics and Optics Division Atomic Molecular and Optical Physics Division EJP	Armenia, Georgia, Moldova
Eugenio Coccia	Gravitational Physics Division	Bulgaria, Romania, Spain
Anna Di Ciaccio	High Energy and Particle Physics Division Physics for Development Group	France, Macedonia North, Montenegro, Serbia
Alessandra Fantoni	Physics Education Division Division of Physics in Life Sciences Accelerators Group	Albania, Croatia, Cyprus, Greece, Italy
Anna Lipniacka	Joint European Solar Physics Division	Hungary, Iceland, Norway, Slovakia
Katharina Lorenz	Technology and Innovation Group	UK
Stuart Palmer	Physics for Development Group	Estonia, Israel, Latvia, Lithuania, Poland
Andrea Schopper	Forum Physics and Society Environmental Physics Division	Austria, Belgium, Liechtenstein, Luxembourg, Netherlands, Switzerland
Karin Zach	Committee on European Integration	Czech Republic, Germany, Poland





Brussels Policy Officer | **Enrique Sánchez Bautista** |

# REPORT OF THE EPS BRUSSELS OFFICE

During 2023, the EPS Brussels office maintained its presence within the EU science policy landscape, enabling us to continue our advocacy activities in the policy-making process in physics-related disciplines and increasing the visibility of the EPS in Brussels. Some of the main activities conducted include several meetings with key legislators from the European Research and Innovation (R&I) domain, including Members of the European Parliament, policy officers of the European Commission (EC), and representatives of the EU Member States. During these occasions, the EPS Brussels office, led by Dr. Enrique Sánchez Bautista, had the opportunity to maintain continuous dialogue with influential leaders and convey the viewpoint of the EPS and sister learned societies with presence in Brussels.

This year, one of the highlights of science policy in Europe is the association agreement between the EU and the United Kingdom, enabling British researchers to participate again in most of the programmes of Horizon Europe (HE) from January 1<sup>st</sup>, 2024, after extensive negotiations. On the other hand, the war in Ukraine continues shaping the priorities of the research system towards enhancing and strengthen technological sovereignty and dual-use technology research. In addition, Iliana Ivanova, the new EC Commissioner for Research & Innovation, has shown a continuation in the same research priorities as her predecessor. Ivanova was appointed following the election of Mariya Gabriel as deputy prime minister of Bulgaria which required Gabriel to resign her EC post.

In line with the EPS Brussels office's vision of strengthening advocacy efforts in physics and enhancing collaboration with sister societies, we continue to establish connections with the European Geosciences Union (EGU), the European Association of Research Managers (EARMA), the European Strategy Forum

on Research Infrastructures (ESFRI), the European Quantum Industry Consortium (QuIC) as well as with the Romanian Physical Society, organising bilateral visits.

We have continued publishing regular articles in e-EPS and in EuroPhysics News about science policy-related issues and in our monthly newsletter, providing periodic political updates, information about events in science policy, as well as relevant information about R&I calls in the Horizon Europe Programme which could be of interest for the EPS members. We also continued to be engaged in initiatives for the Ukrainian physics community. On these lines, Dr. Enrique Sánchez-Bautista coordinated the initiative together with the EPS President, Prof. Luc Bergé, and the EPS Executive Committee member, Prof. Andreas Schopper, of sending letters to EC Commissioner Iliana Ivanova and EC President, Ursula von der Leyen, proposing adjustments to the “hop-on” facility mechanism to increase the funds available for Ukrainian research teams.

The EPS Brussels office has had an active role in the organising committee of the next edition of the EPS Forum 2024, in topics related with science policy and the European research funding.

Other noteworthy achievements in the past year have been accomplished within the Initiative for Science in Europe (ISE), a platform of European learned societies across all research disciplines, representing about 500.000 researchers in Europe, where the EPS is the biggest member. Represented by Dr. Enrique Sánchez Bautista, the EPS Brussels office chairs the Horizon Europe and the Widening Participation working groups (WG), and actively participated in the Research Careers WG. As a direct result of these works, a **Manifesto for Early Career Researchers** was published on January 10<sup>th</sup>, the **ISE Statement to the OECD concept paper on the future “Research and Innovation Careers**

**Observatory (ReICO)”** was published on July 17<sup>th</sup>, and the statement **ISE's main recommendations on HE and towards FP10** on October 26<sup>th</sup>. Still in preparation is a document on “Proposals for enhancing actions for Widening Participation & Spreading Excellence” as a result of the extensive works developed within the Widening Participation WG. Discussions held during the preparation of this document allowed for input the **interim evaluation of HE** and in the ISE Response to the European Commission Public Consultation on the past, present and future of the European Research & Innovation Framework programmes 2014-2027 and the published statement about the potential budget cut to HE: **ISE Calls Attention to the Ongoing Multiannual Financial Framework Mid-Term Revision.**

The Brussels office led EPS's involvement in European project Surrounded by Science (SbS), and reached a significant milestone by completing the last phase of the “EPS Citizen Science Competition” that started in September 2022, organising four travel grants to the winners to EGO-Virgo and CERN facilities. Dr. Enrique Sánchez-Bautista took part in the SbS midterm review meeting in June, hosted at the University of Twente in the Netherlands. The competition has played a role in the research analysis cycle and has been incorporated into the consortium's report, with the decision to continue it in the second research cycle in 2024. Subsequently, Ms. Monica Constantin participated in the SbS Transnational Meeting in Athens, Greece, on October 30<sup>th</sup> and 31<sup>st</sup>, setting the stage for a second iteration of the EPS Citizen Science Competition. Additionally, The EPS Brussels office also contributed to the dissemination of information and content creation for social media and newsletters.

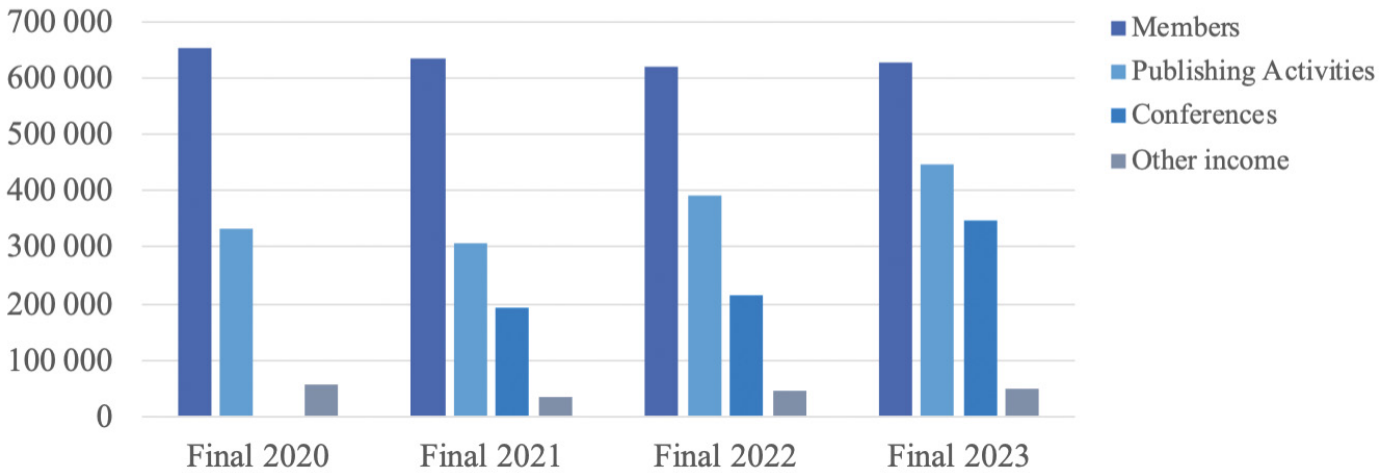
As always, never hesitate to contact your Brussels office. We are here to support you! ■





# FINANCIAL REPORT 2023

**Income by Source 2020 - 2023 (€)**



This report contains the key financial results of 2023, the figures have been reviewed by the auditors. Full details can be found in the EPS annual accounts which are circulated separately. The overall financial result of 2023 was significantly better than budgeted. The income for 2023 was **Euro 1 471 424.00**, 43% from Members, 30% from publication activities and 24% from conferences and other activities. The expenditure for 2023 was **Euro 1 424 871.24**, 52 % for administration and governance, and 48% for activities. The activities of divisions and groups resulted in a net income of Euro **31 314.88**. The outcome for the year is a profit of Euro **77 867.64**

Income in 2023 was 20% higher than expected, with the increase mainly due to an increased conference income reflecting the success of the conference CLEO/Europe-EQEC.

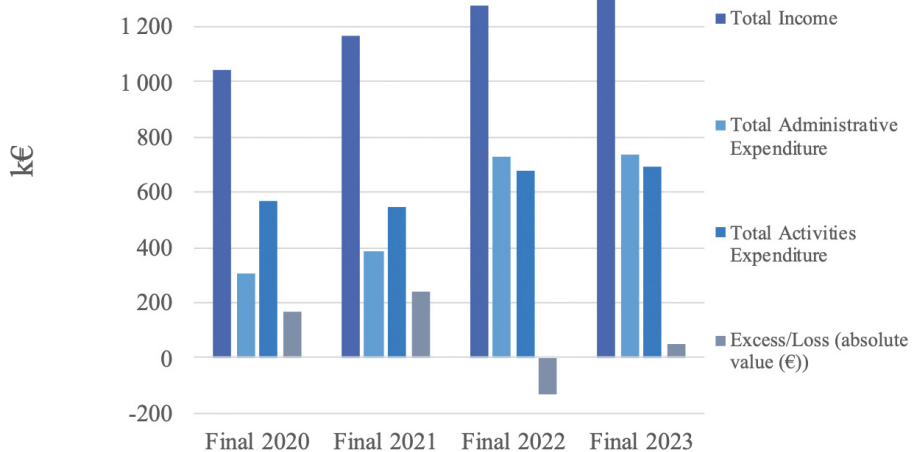
Administrative expenditure in 2023 was higher than the amount budgeted. This can be accounted for by the overlap of Secretaries General and the retirement indemnity of the outgoing Secretary General D. Lee. Administrative expenditure was also increased to fund specialist tax advice and the services of an expert accountant.

The EPS was required to reimburse the French Social Security (URSSAF) the sum of **Euro 71 694.00**. The background is the following. In 2020/21 D. Lee applied for an exoneration of EPS’ social security contributions for all staff in the context of Covid-crisis government aid measures. This was granted under the condition that the French state reserved the right to review eligibility at a later date and if necessary reclaim the money. This review happened in 2023 and it was determined that the EPS were not eligible for this aid. We were able to repay this money in full without further penalties.

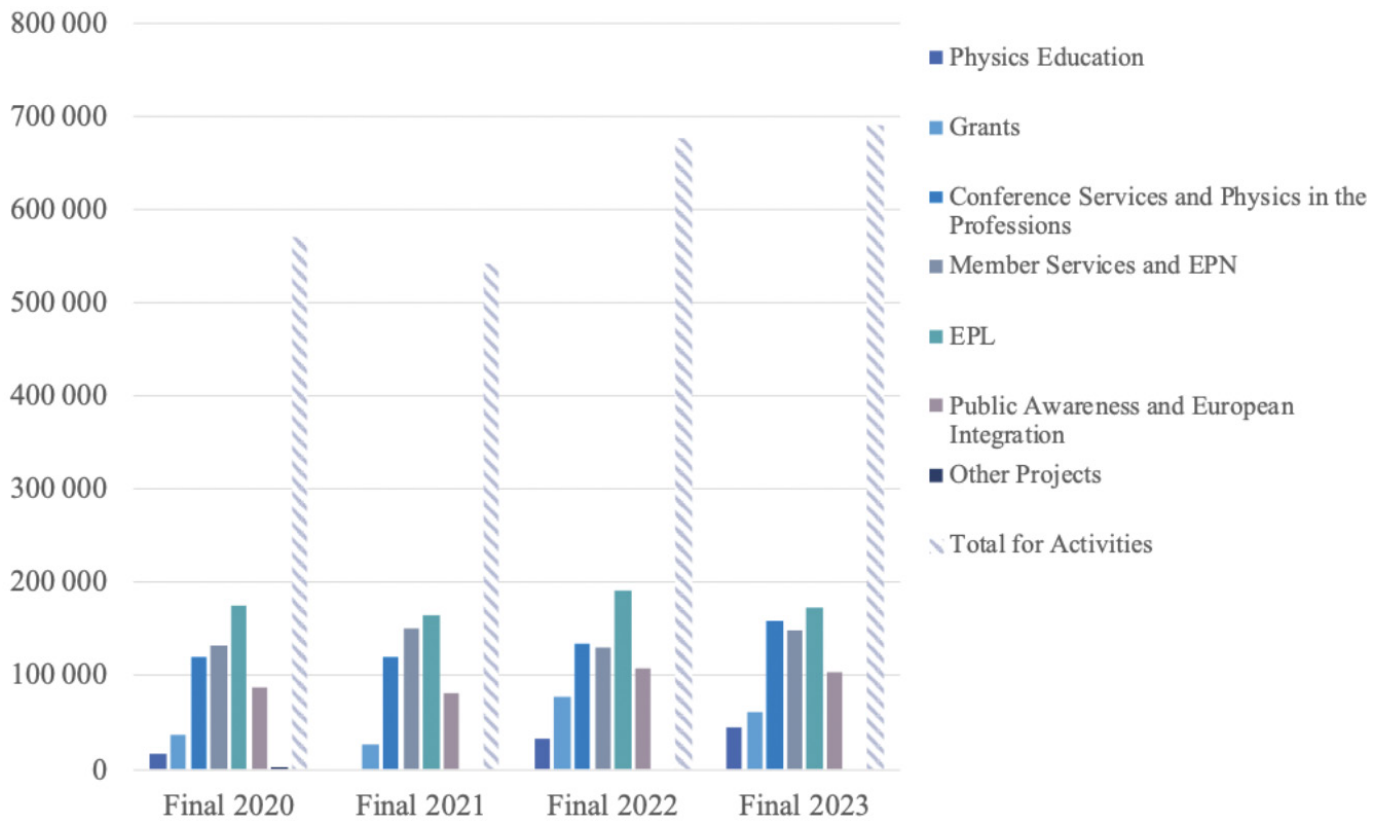
Two projects initially foreseen for 2023 were not completed during the year. The project to renew the EPS website will commence in 2024 and the book “Grand Challenges in Physics on the Horizon 2050” will be published in March 2024.

At the Council meeting in June 2022 Council approved the carry forward of **Euro 241 085** received in 2021 and approved the use of **Euro 100 000** from the reserves. Given the unexpectedly strong result of 2023 **Euro 209 546** of these funds remained unused.

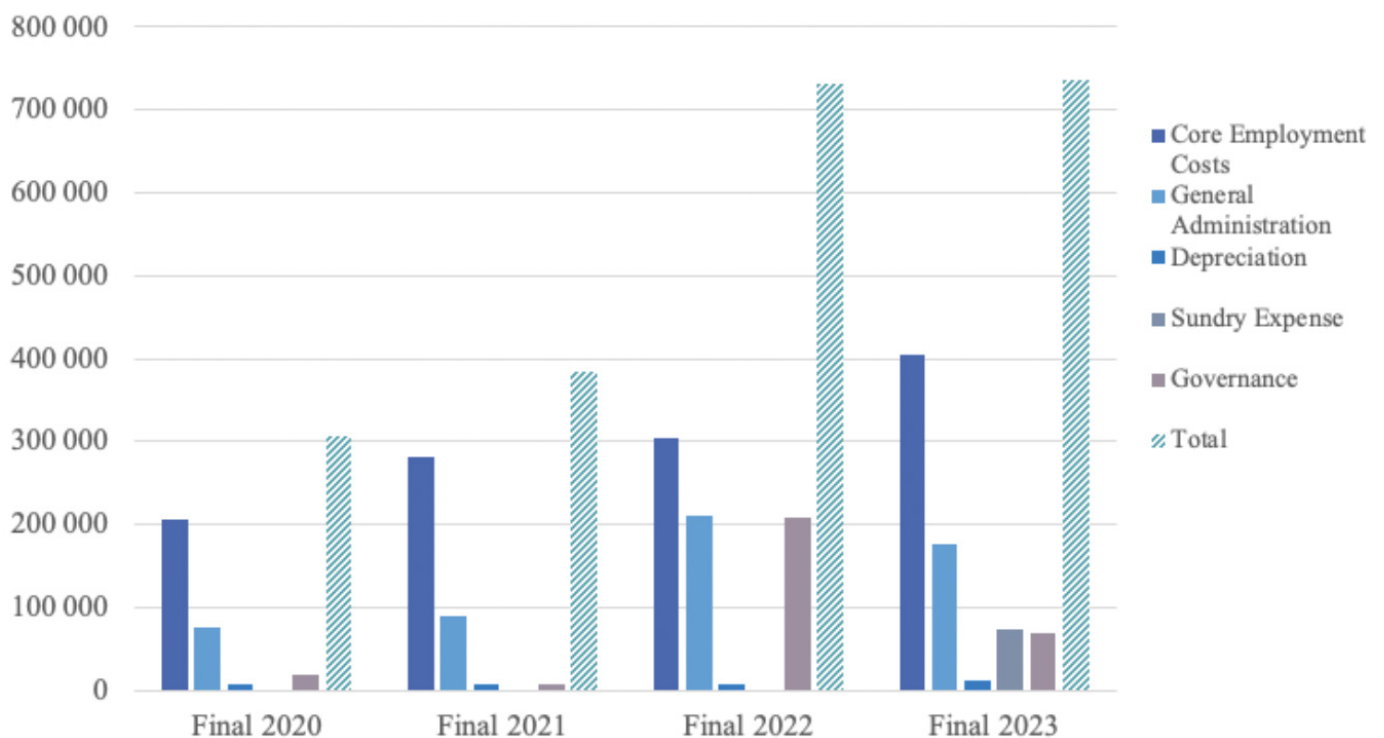
**Excess/Loss 2020 - 2023 (€)**



### Activities expenditure 2020 - 2023 (€)



### Administrative expenditure 2020 - 2023 (€)



# REPORTS BY EPS ACTION COMMITTEES

## EPS HISTORIC SITES COMMITTEE | Chair: Karl Grandin

The year of 2023 saw the addition of EPS Historic sites in two new countries: Israel and Serbia, thus widening the range of this distinction in a geographical sense. The new 2023 historic sites are also representing the history of physics chronologically from the 18<sup>th</sup> century up until the 20<sup>th</sup> century, and many of them still host vital physics institutes. It should be emphasised that the history of physics is not an antiquarian interest, but a question of identity and a cultural heritage that unites and that can go very well in hand with the development of physics into the future. The EPS historic sites of course have a local and regional meaning, but taken all together, they provide a vivid image of the rich tapestry of physics in Europe.

Five EPS Historic Sites were inaugurated in 2023. Until December 31, 2023, 107 nominations have been received by the EPS Historic Sites Committee. Proposals can be made at any time from the EPS web site (link below). Of these proposals, 74 EPS Historic Sites have been inaugurated in 26

different countries at the end of 2023. The full list consists of:

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



▲ Prof. em. Dr Friedrich-Karl Thielemann and EPS Secretary General Dr Anne Pawsey unveil the plaque declaring the Stachelschützenhaus on Petersplatz a historical site of physics. (Photo: University of Basel, Dominik Plüss)



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. The Uddmanska 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
39. Institute of Spectroscopy, ISAN, Troitsk, Russia, 20 June 2018
40. Dunsink Observatory, Dublin, Ireland, 23 June 2018
41. Halde Observatory, Alta, Norway, 26 August 2018
42. Laboratories of Kirchoff and Bunsen, Heidelberg, Germany, 1 October 2018
43. Old Physics Building of the Eötvös Loránd University, Budapest, Hungary, 12 October 2018
44. Laboratorio Bergara, Basque Country, Spain, 20 October 2018
45. Jungfrauoch Research Station, Switzerland, 8 February 2019
46. Institute of Physics of Archirafi Street, Palermo, Italy, 18 February 2019
47. Atominstytut, TU, Vienna, Austria, 21–22 May 2019
48. Holy Spirit College, Leuven, Belgium, 23 May 2019
49. The Former Physics Institute, Frankfurt am Main, 4 September 2019
50. Mendeleev’s Museum-Archive, St. Petersburg, Russia, 12 September 2019
51. Birr Castle, Demesne, Ireland, 20 September 2019
52. Institute for High Voltage Engineering, RWTH, Aachen, Germany, 30 September 2019
53. The Academy of Sciences of the Bologna Institute, Italy, 7 November 2019
54. The Physics Department at the University of Dundee, UK, 2 December 2019
55. Les Houches School of Physics, Les Houches, France, 5 October 2020
56. Sonnenborgh Observatory, The Netherlands, 7 April 2021
57. City of Jena, Germany, 7 June 2021
58. A.J. Ångström Physics Institute, Uppsala, Sweden, 6 August 2021
59. Ampère House, Lyon (Poleymieux), France, 6 October 2021
60. Cyclotron Hall, Louvain-La-Neuve, Belgium, 12 October 2021
61. Magnus-Haus, Berlin, Germany, 15 October 2021
62. Old Department of Physics, Lund, Sweden, 10 May 2022
63. Zeeman Laboratory, Amsterdam, The Netherlands, 25 May 2022
64. Theodor von Grotthuss Laboratory, Gedučiai/ Žeimelis, 2 July 2022
65. The Aldo Pontremoli Institute of Complementary Physics, Milan, Italy, 16 September 2022
66. Meteorological Observatory, Zagreb, Croatia, 23 September 2022
67. Victor Franz Hess Messtation, Haflekar/ Innsbruck, Austria, 29 September 2022
68. Institut d’Études Scientifiques de Cargèse, France, 7 October 2022
69. Sodankylä Geophysical Observatory, Finland, 8 December 2022
70. Racah Institute of Physics, Jerusalem, Israel, 19 April 2023
71. Faculty of Physics, (UAIC), Iași, Romania, 22 May 2023
72. Mansion of Misa Anastasijevic, Belgrade, Serbia, 15 September 2023
73. Stachelschützenhaus, Basel, Switzerland, 22 September 2023
74. Institut de Physique Nucléaire Orsay, France, 13 October 2023

**Cf. [https://www.eps.org/general/custom.asp?page=distinction\\_sites](https://www.eps.org/general/custom.asp?page=distinction_sites)**

The HS Committee examines proposals three times per year. A few more sites have already been approved and await inaugurations in 2024.

Members of the EPS HS Committee during 2023 were: Karl Grandin (Chair), Luisa Cifarelli, Goran Djordjevic, Ursel Fantz, Alain Fontaine and Jim Hough. Hripsime Mkrtchyan represents the EPS Young Minds. The chair and the communication coordinator at EPS Mulhouse, Gina Gunaratnam, works closely to improve the system for the nominations.

For each inauguration event, an EPS HS plaque is unveiled in the presence of local representatives and authorities. The EPS President or another representative (Past President or Member of the EPS Executive Committee or Member of the EPS HS Committee) attends the ceremony. For each ceremony, some 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.

## YOUNG MINDS ACTION COMMITTEE | Chair: Mattia Ostinato

Young Minds (YM) is an EPS programme launched in 2010 with the aim of bringing together students and early career researchers in Physics and foster the excellence among them by encouraging the creation of local groups called sections and ensuring the possibility to access an annual budget to carry out student-led activities falling in three main categories: outreach, networking and professional development. Young Minds has now reached ten years of activity with 106 sections in 38 countries. Of those 106 sections, 72 in 33 countries are considered active, e.g. they have applied for funding or attended the leadership meeting recently.

### Programme Management and Action Committee

The full Young Minds Action Committee (AC) comprises EPS President Luc Bergé, EPS Secretary General, Anne Pawsey (replacing Secretary General David Lee, who retired in March 2023), Executive Committee member Roberta Caruso, EPS YM Programme manager Ophélie Fornari, Mattia Ostinato (chair, Spain), Tanausú Hernández Yanes (Poland), Carmen Martín (Spain), Anna Grigoryan (Armenia), Carlos Damián Rodríguez Fernández (Spain), Lasha Dalakishvili (France), Serina Al-Massu (Germany) and Pasquale Francesco Romano (Italy).

Long-standing Action Committee members Richard Zeltner and Hripsime Mkrtchyan and new member Mažena Mackoit Sinkevičienė left the committee in the first half of 2023. To maintain AC functionality and in consideration of the growth of the YM network and the recent direct involvement of committee members in the organisation of various events, a call for applications to join has been issued in the second half of the year. As a result of this call, L. Dalakishvili, S. Al-Massu and P.F. Romano have joined the Action Committee in Q4 of 2023 and, in view of the departure of T. Hernández Yanes, expected in Q2 2024 the Action Committee has selected from the same call an applicant to join the committee in this same time frame.

Each member of the Action Committee serves as direct contact point for several sections within the EPS YM Network. Following the nation-based approach started in 2021, the YM network is split into 6 geographical zones, and each zone assigned to an AC member. The section distribution was updated to take into account both the entrance of new members in the Action Committee and the creation of new Sections.

Starting from Q4 2023, the Young Minds Programme was the first network of early career Physicists to be granted permanent representation in the Scientific Advisory Committee (SAC) of

the European Physical Journals (EPJ). The Action Committee has decided that the YM representative will be an AC member and will be replaced on a yearly basis. The AC member representing YM in the EPJ-SAC in 2024 will be M. Ostinato (<https://www.epj.org/2722-eps-young-minds-extends-epj-scientific-advisory-committee-as-first-early-career-physics-network>).

### Section Development and Grants

In 2023 the programme established 8 new sections, and it is already set to approve 1 more in January 2024, reaching the figure of 73 active sections in 33 countries. Each of these sections is entitled to apply for an Activity Grant twice a year, which can provide a maximum annual funding of 1000 € per section. This type of grant supports activities falling in at least one of the three categories: outreach, networking and professional development. There are two deadlines per year – January 15<sup>th</sup> and July 15<sup>th</sup>. Table 1 summarises the figures involving the 2023 Activity Grants, including the total number of applications, the number of those approved, the total amount of requested funding, and the amount granted for each deadline.

Starting from January 2019, the Action Committee introduced the Young Minds Conference Award (YMCA), designed as a specific support for conferences or sessions organised by Young Minds sections.

2023 ACTIVITY GRANTS	REQUESTS	APPROVED WITH FULL AMOUNT	APPROVED WITH REDUCED AMOUNT	TOTAL AMOUNT REQUESTED (€)	TOTAL AMOUNT GRANTED (€)
January 15 <sup>th</sup> deadline	36	19 (53 %)	17 (47 %)	11.984,00	9.971,00 (83%)
January 15 <sup>th</sup> deadline	36	12 (33 %)	24 (67 %)	9.549,97	6.811,00 (71%)
<b>Total</b>	<b>72</b>	<b>31</b>	<b>41</b>	<b>21.533,97</b>	<b>16.782,00</b>

▲ Table 1. Summary of the 2023 Activity Grants.

▼ Table 2. Summary of the 2023 Young Minds Conference Awards (YMCAs).

2023 YMCA	REQUEST	APPROVED WITH FULL AMOUNT	APPROVED WITH REDUCED AMOUNT	TOTAL AMOUNT REQUESTED (€)	TOTAL AMOUNT GRANTED (€)
January 15 <sup>th</sup> deadline	4	0	4 (100%)	4.000	1.500 (38%)
April 15 <sup>th</sup> deadline	5	4 (80%)	1 (20%)	4.850	4.810 (99%)
January 15 <sup>th</sup> deadline	2	1 (50%)	1 (50%)	2.000	1.000 (50%)
October 15 <sup>th</sup> deadline	0			0	0
<b>Total</b>	<b>11</b>	<b>9</b>	<b>9</b>	<b>10.850</b>	<b>7.310</b>

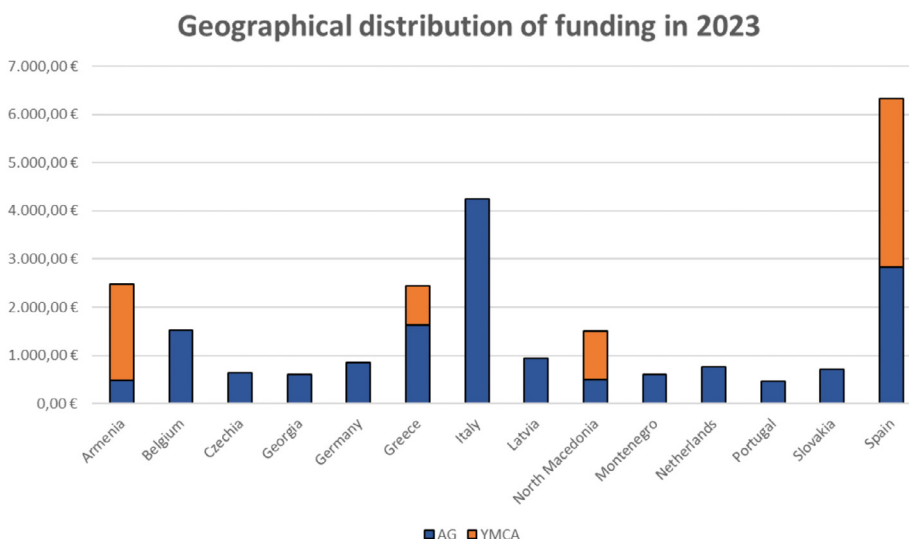


YM Conference Awards have been introduced to rise the visibility of the EPS YM programme during large events involving the scientific community. The applicants are requested to guarantee a timeslot to present the YM project during the event, or alternatively to distribute YM promo material. Table 2 summarizes the figures involving the 2023 YMCAs, including the total number of applications, the number of those approved, the total amount of requested funding, and the amount granted for each deadline.

Sections are assisted during the grant submission process, and especially for the YMCA the Action Committee provides feedback and the possibility to resubmit the grant, in a sort of peer review process that helps both parties.

Compared to 2022, the number of Activity Grants applications has not changed, and is in line with pre-pandemic levels. Instead, what has changed has been the distribution of received applications per grant deadline, with the applications equally divided between them. This might be interpreted as a sign that after the pandemic the Section Activities returned to their usual levels, and no time period is preferred for activities. While the number of applications remained stationary, the amount of both requested (24 580 in 2022 vs 21 533.97 in 2023) and granted (21 433.15 vs. 16 782.00) funding has seen a decrease as well as the number of grants approved with full amount, which went down from 69 % of received applications to 43%.

These data can be interpreted by considering that, after the pandemic period, the YM Network is undergoing a “generational shift” with more new Sections starting brand-new activities and with internal turnover in the already established ones. The new members, and especially the newly established Sections, are thus still learning the inner workings of the programme and to find the type of activities best suited to them, thus aiming at conducting a higher number of low-to-middle cost activities, instead of fewer and bigger ones. The amount of grants approved with reduced amount can also be seen as a byproduct of a learning curve



▲ **Figure 1.** Geographical distribution of the total funding granted by the Young Minds Action Committee in 2023 to the Young Minds network. Blue bars indicate Activity Grants, orange bars indicate YMCAs.

in the skills that YM aims to foster, such as grant writing and event planning, and is expected to decrease as the new YM generations gather experience.

The number of YMCA applications in 2023 increased as compared to 2022. Specifically, the number of applications rose from 9 to 11, yet the granted budget decreased, from 8.795 € in 2022 to 7.310 € in 2023. This phenomenon can also be interpreted with the same considerations as above, with the additional nuance that the new YM Sections and members have a greater enthusiasm for networking at in-person events such as conferences.

Taking the Activity Grant and the YMCA applications together, the Young Minds Programme has granted in 2023 a total amount of 24.092 € to sections distributed over 14 different countries, ranging from Armenia to Spain, as can be seen in Figure 1. While the traditionally strong cluster of long-standing and very active sections in Italy, Spain, Germany and Portugal received about 50 % of the funding (11.896,00 €), it is gratifying to see that around 25 % (6.420,00 €) of the total went into an emerging cluster of very active Sections located into the eastern regions of the YM network and composed by Armenia, Greece and North Macedonia. The remaining 25 % of the funding is distributed over the remaining regions within the YM network.

The above plot summarizes how the approved funding is distributed over the different countries within the YM network.

### Young Minds and EPS

The organisation of Young Minds sessions during EPS sponsored and recognised conferences started in 2018 to increase the synergy between Young Minds and other EPS Divisions and Groups. Following the work done in the past year, the Action Committee worked towards continuing these collaborations, with many AC members attending.

It is customary that when a conference sponsored or organised by EPS is held in a venue where a Young Minds Section is established, its members are encouraged to set up a Young Minds Session in it, with the support of the Action Committee serving as a bridge between the Section and the EPS Group or Division organising the conference.

An example of this was the Young Minds Session proposed during the CMD 30 – FisMat 2023, which was held in Milan (Italy) in September and joined together the annual conference of the EPS Condensed Matter Division and the usual gathering of the Italian low-energy physics community. This YM Session was organised by the Milan YM Section (PYMP) and featured a round table on technology transfer and links with enterprise titled

“Knowledge transferability: bridging academia with industry”.

The Young Minds Programme was also involved in the 2023 GIREP-EPEC conference, held in July in Košice (Slovakia) and jointly organised by the EPS Physics Education Division of European Physical Society (EPS-PED), the International Research Group on Physics Teaching – GIREP (Groupe International de Recherche sur l’Enseignement de la Physique), and the Slovak Physical Society.

Here YM took part in an EPS sponsored Symposium organised by former EPS-PED Chair David Sands, titled “School-University Collaborations: an exploration of issues and possible solutions”. The contribution consisted in a talk during the symposium given by AC member C.D. Rodríguez Fernández, who explored the different activities done by Young Minds Sections in collaboration with schools and showed, with a data driven approach, how YM Sections can act beneficially as a bridge between Research Institutions and schools. Furthermore, this intervention will be expanded upon and published in the proceedings of the conference.

In addition to these contributions held in conferences organised by the EPS Divisions and Groups, Young Minds also prepared sessions during the meetings and conferences of some of the Member Societies of EPS, strengthening its ties also with National Physical Societies.

During the 109<sup>th</sup> congress of the Italian Physical Society, held in September in Salerno (Italy), a YM Session was organised by AC Chair Mattia Ostinato, in collaboration with the Italian Association of Physics Students (AISF). The session was targeted at students and early career researchers and was focused on career development and technology transfer. The session saw also the attendance of representatives of multiple Italian YM Sections and AISF groups.

The YM Sections of Oviedo, Granada and Madrid took part in the organisation of the “Encuentro Nacional de Estudiantes de Física – ENEF” (National Meeting of Physics Students), a meeting set up by the GdeE-RSEF (Grupo de Estudiantes de la Real Sociedad Española de Física) the

Students’ Network of the Royal Spanish Physical Society. The three Sections form part of both YM and GdeE-RSEF and, with financial support from YM, they organised a four-day meeting in Oviedo (Spain) with the aim of gathering students and early career researchers from all of Spain.

Since the Leadership Meeting 2024 will be co-located with the EPS Forum, Anna Grigoryan, the leader of the LM 2024 organisation team, and Mattia Ostinato, AC chair, are members of the EPS Forum organisation committee.

### 11<sup>th</sup> Leadership Meeting

Every year, the YM Network comes together at the Leadership Meeting (LM), an event where representatives of each YM section are invited, and where they can present and discuss their section’s activities with their peers and network with them.

Before the pandemic, the LM were organised each year by a different Section, selected with a call for applications, and hosted at their parent institution. The host Section would receive a budget from EPS YM to set up the meeting and would be assisted by the AC in organising it.

After the pandemic, the EPS Forum format was established as a biennial event and the YM LM is co-located with it in the years where it takes place. For the years where the EPS Forum is not scheduled, the AC has decided to readapt the pre-pandemic formula in order to give once again Sections the opportunity of taking up the challenge of organising an international meeting, which proves an invaluable opportunity for YM members to strengthen transversal skills such as event planning, budget management and logistics.

A call for applications to host the LM was opened in the second half of 2022, and the Action Committee selected the University of Naples Federico II as venue and the local Young Minds Section (“PONYs”) as organisers. The meeting lasted two days and gathered together 41 section delegates from 25 Sections, coming from 12 countries which were involved in numerous activities and seminars together with 23 attendees from the hosting Section.

The LM started with the welcome by the local organising committee, and by

remarks from EPS President Prof. Luc Bergé, Italian Physical Society President Prof. Angela Bracco, who talked about the role of early career researchers and their networks within national and international societies, and Prof. Gennaro Miele, head of the Physics Department of the host University, who gave a quick overlook on the research and the activities carried out in the institution. The introduction was closed by AC Chair Mattia Ostinato, who talked about the status of the YM Programme and was followed by the scheduled LM programme, which combined both scientific and professional development seminars. The scientific part of the programme was geared towards a general audience and included a lecture by Prof. Yasser Omar (University of Lisbon), who gave an general talk to understand the relevance of 2022 Nobel Prize in Physics, Dr. Anna Chiara de Luca (IEOS) who talked about the applications of Raman spectroscopy in the medical field, Prof. Alberto Orso Maria Iorio (UNINA - INFN Naples) about particle physics detection and analysis and by Prof. Martina de Laurentis (UNINA - INFN Naples) about gravitational waves detection and the influence of quantum fluctuations in the measurements. Such interventions were easily followed by all the participants and sparked lively interactions with the speakers.

Professional development has always been an important part of the YM programme and the related seminars in the LM reflected this focus. They included a lecture from Dr. Antigone Marino (CNR-ISASI) about getting out of the comfort zone and the ups and downs of a PhD trajectory, an intervention from Dr. Enrique Sanchez about the work of EPS on science policy and an extensive panel discussion about the new challenges of scientific publishing. Topics such as public scrutiny, predatory business practices, open access and AI generated content were discussed by a large panel formed by journal and society representatives, editors and researchers. Yann Amouroux (Optica), Isabelle Auffret Babak (EDP Sciences), Prof. Gabriella Bosco (IEEE Journal of Lightwave Technology), Prof. Gabriella Cincotti (IEEE Photonics

Journal), Prof. Vincenzo D'Ambrosio (UNINA), Prof. Emiliano Descrovi (EOS) and Dr. Davide Migliorini (Springer) were the members of this panel.

Regarding the networking side, one of the important moments of the LM was the poster session, where Sections could showcase the activities performed in the previous year. The 2023 edition of the EPL sponsored "Best Activity Award", which marked its return for the first time since the pandemic, was assigned ex aequo to the YM Section of Prague and Santiago de Compostela for the open day event "Become a Scientist for a Day" and the conference "II Northwestern Meeting of Young Researchers in Optics", respectively, and the prize ceremony was held by EPL Deputy Editor, Dr Alessandra Lanotte.

In consideration of the large members of participants, the interest sparked by the proposed talks and activities and the excellent organisation demonstrated by the hosting section, the meeting can be considered a success. A more detailed account of the event is given in *Europhysics News* 54/4, 2023, p. 4-5.

### Young Minds publications in EPS Journals and Magazines

A new YM section in each issue of *Europhysics News* (EPN) has been established in 2020. Among the articles published in the YM section in 2024, the contributions to EPN 54-1 and EPN 54-5 are particularly noteworthy. They describe, respectively, the Scientific Summer CAMP organised in Armenia by the YM Yerevan

Section to encourage high school students to pursue scientific studies and a Photonic Maze built by the YM Milan Section to illustrate the principles of lasers with a hands-on and gamified approach.

Furthermore, Young Minds continued in 2023 to regularly publish on e-EPS, the online magazine of EPS with Carmen Martín as the contact person within the Action Committee for the e-EPS.

### Webinars and other activities

In 2021 the Young Minds Programme joined forces with the European office of Optica to prepare and implement "From PhD to CEO", a webinar series on European entrepreneurs from the field of optics and photonics. In each webinar one invited founder gives a talk on their journey, which is followed by a Q&A session. The first three editions of the series were very well received, such that Optica, EPS and EPS YM decided to implement a fourth edition which started in the second half of 2023. It is still ongoing and will comprise an in-person installment at the 2024 Leadership Meeting.

More details on the motivation behind the series can be found in an article from Richard Zeltner, Yann Amouroux and Claus Roll (OPTICA Europe Directors) published in *Europhysics News* 52/5, 2021, p. 13-14.

In 2023 YM Network was invited to take part to the meeting of the 25<sup>th</sup> anniversary Scientific Advisory Committee (SAC) of the European Physical Journal (EPJ),

which was held in April 2023 in Zurich (Switzerland), to contribute with a perspective on the view that early career researchers have regarding scientific publishing. AC Member Carlos Damián Rodríguez-Fernández took the lead in preparing this contribution, designing a specific survey to be submitted to the YM Network and presenting the results at the meeting, which gathered the SAC and representatives of different national physical societies, EPJ editors, and EPJ publishers (Springer, EDP Sciences and Società Italiana di Fisica). During his intervention, action lines were proposed to tackle the issues that emerged from the survey and were carefully listened to by the participants. It motivated a long discussion about the relevance of including early careers in reviewing processes and the suitability of publishing progress reports in the Q&A round. A report of both the survey results and of the following discussion has been published in *Europhysics News* 54/3, 2023, p. 4-5.

The YM intervention has been received positively by the EPJ Community, and resulted in Young Minds being invited to have permanent representation in the SAC.

### Outlook to 2024

The second edition of the EPS Forum will be taking place in Berlin from the 25<sup>th</sup> and the 27<sup>th</sup> of March 2024. As it happened in 2022, the Leadership Meeting will be co-hosted with the Forum and the Action committee looks forward to offering to the YM Network such an exciting and rich event.

## CONFERENCE COMMITTEE | Chair: Marian Reiffers

The Conference Committee from February 2023 consisted of the following members: Patricia Helfenstein (secretary), Alice Valkárová, Els de Wolf, Teresa Pena and Marian Reiffers (chair).

The situation with organisation of conferences continues to improve year on year. However, it is still not at the level seen prior to 2019. During 2023 and the beginning of 2024 we have received a total of 17 applications. We approved 16 of them. One could see the increasing trend

in numbers however, the numbers remain below pre-pandemic levels. We expect that situation will improve in coming years but the enforce break may mean that people need to be reminded of the process. The approved conferences are listed on the website of the EPS. We have well elaborated system of work. Applications are presented all members of committee.

Conferences, Workshops, and Summer Schools are essential elements in the personal communication of physics, the career

development of physicists, the promotion of physics towards students and young scientists, and the reputation and credibility of the EPS and physics. 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.

I would like to thank all committee members who answered on communication, especially Alice Valkárová.



CONFERENCE	START DATE	TYPE	DIVISION/GROUP
IPAC'2023 14 <sup>th</sup> International Particle Accelerators Conference	07/05/2023	Europhysics	Accelerators Group
54 <sup>th</sup> Conference of the European Group on Atomic Systems (EGAS 54)	18/06/2023	Europhysics	AMOPD
2D Quantum Matter - Summer School	10/07/2023	Europhysics	CMD
European Conference on Surface Science - ECOSS	28/08/2023	Europhysics	CMD
CMD30	03/09/2023	Europhysics	CMD
Joint European Magnetism Symposia (JEMS2023)	27/08/2023	Europhysics	CMD/EMA
European School on Magnetism (ESM2023)	04/09/2023	Europhysics	CMD/EMA
34 <sup>th</sup> IUPAP Conference on Computational Physics (CCP2023)	04/08/2023	Europhysics	Computation Physics Division
GIREP-EPEC 2023 Conferenc	03/07/2023	Europhysics	Education
4 <sup>th</sup> EPS Conference on Gravitation: Black Holes	13/11/2023	Europhysics	Gravitational Physics
EPS-HEPP Conference	21/08/2023	Europhysics	HEPP
Biomolecules and Nano Structures (BioNano)	14/06/2023	Europhysics	Physics of Life
The 49 <sup>th</sup> European Conference on Plasma Physics	03/07/2023	Europhysics	Plasma
Photoptics 2023 - 11 <sup>th</sup> International Conference on Photonics, Optics and Laser Technology	16/02/2023	Europhysics	QEOD
CLEO®/Europe-EQEC	26/06/2023	Europhysics	QEOD
International Conference on Statistical Physics - SIGMAPHI 2023	10/08/2023	Europhysics	SNPD
3 <sup>rd</sup> EPS-TIG Hands-on Science, Technology and Interfaces Event	07/07/2023	Recognised	TIG
The European Conference PHYSICS OF MAGNETISM 2023 (PM'23)	26/06/2023	Recognised	CMD
European Research Conference on "Electromagnetic Interactions with Nucleons and Nuclei" (EINN 2023)	29/10/2023	Recognised	

## EQUAL OPPORTUNITIES COMMITTEE | Chair: Petra Rudolf

The mission of the EPS Equal Opportunities Committee (EOC) is to promote and to encourage diversity and equal access of all physicists to career and employment opportunities, professional resources in the fields of physics and physics education, regardless of gender, ethnicity, or nationality. The EOC works for fair and equal treatment of all physicists in their professional environment, including professional networks, publishing, and conferences. It combats predatory behaviour based on gender, ethnicity, or nationality.

A major part of the EOC's activities focuses on ensuring equal opportunities for female physicists or women in physics. For this, the EOC monitors participation in EPS and other events such as conferences by gender (within the scope of the Gender Fairness project). It defends, at the very least, a representative participation of women physicists on Boards and committees such as those of EPS D&G, collaborating societies, conference committees, and other instances. The EOC organises and participates in events designed to promote awareness of the gender gap and the need for proactive measures to promote equal opportunities. It also publishes papers in EPS media and elsewhere to promote such

awareness. Where possible, the EOC participates in surveys designed to measure the gender gap.

The EOC's mission cannot, however, be limited to the gender issue. It must also include the promotion of physics, physics education, and physics careers among members of underrepresented ethnic descent or nationality.

2023 was a year of transition for the EOC following the departure of Kees van der Beek as chair at the end of 2022. Petra Rudolf took over as interim chair and has begun the process of renewing the board and restablisng links to the divisions and groups.

The EPS EOC today consists of 7 members. They are,

- Ian Bearden, Niels Bohr Institute, University of Copenhagen, Denmark, EPS Executive Committee,
- Nadia Martucciello, CNR Spin, Italy, EPS CMD,
- Hripsime Mkrtchyan, Department of Meteorology, University of Reading UK,
- Elisabeth Rachlew, KTH, Stockholm, Sweden,
- Ana Proykova, Faculty of Physics, University of Sofia,
- Petra Rudolf (Chair), Zernike Institute of Advanced Materials, University of

Groningen, the Netherlands,

- Enrique Sanchez, *Ex-Officio* EPS Policy Officer.

The EPS Emmy Noether Distinctions 2022 were awarded as follows.

The 2022 Emmy Noether Distinction for her Full Career was awarded to Monika RITSCHMARTE of the Institute of Biomedical Physics, Dept. of Physiology & Medical Physics, Medical University of Innsbruck (Medizinische Universität Innsbruck) Austria, "*for exceptional contributions to optical microscopy and manipulation methods and for the promotion of women's careers in physics*".

The 2022 Emmy Noether Distinction for mid-career candidates was awarded to Ilaria ZARDO of the Department of Physics, University of Basel, Switzerland, "*for her contributions in the methodology of characterizing nanoscale materials and the consequent discovery of their new functional properties*".

The distinction was presented by the EOC Chair Petra Rudolf during the joint annual meeting of the Swiss and Austrian Physical Societies, on the 4<sup>th</sup> of September 2023 in Basel, Switzerland.

Former Emmy Noether Laureates were featured in the EPS Calendar of Inspiring Physicists 2024.

## COMMITTEE ON EUROPEAN INTEGRATION | Chair: Gertrud Zwicknagl

The EPS Executive Committee approved the new composition of the committee in its meeting January 30-31, 2023 in Brussels

Chair: Gertrud Zwicknagl, Germany.

Members Ekaterina Batchvarova, Bulgaria, Radu Constantinescu, Romania Goran Djordjevic, Serbia, Danica Krtovska, North-Macedonia, Dénes Lajos Nagy, Hungary, Leszek Sirko, Poland, Sofoklis Sotiriou, Greece.

### The strategy of the EPS-CEI

In 2023 the Committee of European Integration kept its general strategy of promoting Physics across Central, Eastern and Southern parts of Europe through activities on the following five directions:

1. Integrating the access to research infrastructures in Europe.
2. Student training through a School Programme supported by EPS.
3. Physics education and teacher training.
4. Strengthening the regional cooperation among EPS member societies and other regional organisations.
5. Promotion of physics in the regions.

### Main activities in 2023

For 2023 the EPS-EIC planned the following actions:

1. Meetings of the EPS-EIC with the DPG and other potential partners.
2. Organisation of a PhD School.
3. Support of the Balkan Physics Olympiad.
4. Special mobility programme for scientists from Albania, North Macedonia, Ukraine.
5. Promotion of the cooperation in Europe.

The total budget for these activities was 12.000,00 €.

Due to time restrictions, it was not possible to organise an EPS-EIC meeting jointly with a DPG event in Germany. The meeting with DPG was postponed to 2024 and will take place in Berlin on March 22, 2024.

The amount of EUR 3.000,00 granted for 2023 was therefore partially used for a joint EPS-EIC Balkan Physics Union Workshop on “Physics in Balkans and the European Integration” in Craiova, October 12-14, 2023.

In 2023, a BWXX/BW2023 SEENET-MTP meeting was organised August

29-31, 2023 in Vrnjačka Banja, Serbia <https://bwxx.seenet-mtp.info/>. It was not possible to set up a PhD school. An ambitious PhD school programme will start in 2024.

### The actions taken were

**Digital kick-off meeting of EPS-EIC** on February 21, 2023 where actions and budget details were discussed

**Organisation of the 5<sup>th</sup> edition of the Balkan Physics Olympiad**

<https://balkanphysicalunion.info/?p=4224>

**The BWXX/BW2023 SEENET-MTP meeting** was organised on August 29-31, 2023 in Vrnjačka Banja, Serbia

<https://bwxx.seenet-mtp.info/>

As representatives of the Physical Societies from many South Eastern European countries were present at the Balkan Physics Olympiad, a Round Table discussion was organised during this event.

We supported 4 Ukrainian scientists to participate in the 48<sup>th</sup> congress of the Polish Physical Society in Gdansk.

We also supported IPSEC at the same congress.

## DISTINCTIONS AND AWARDS COMMITTEE | Chair: Anna Di Ciaccio and Luisa Cifarelli

Anne Pawsey proposed at the meeting of the Executive Committee in September that the activity of the Awards and Distinctions Committee should be resumed. Anna Di Ciaccio volunteered (as a new member of the Executive Committee) to co-chair it with Luisa Cifarelli, and decided to invite new members. The new members are Luisa Cifarelli (Past EPS President, Co-Chair), Anna Di Ciaccio (Executive Committee Member, Co-Chair), Richard Dendy (Plasma Physics Division), Enrique Dies (Condensed Matter Division), Lukas Gallmann (Quantum Electronics and Optics Division), ex-officio: Anne Pawsey (Secretary General), Gina Gunaratnam (Coordinator of Communications). The Executive Committee approved the new composition on 24 November. On 20 December, the Committee met for the first time with the primary role of advising the Executive Committee on policy related to

the Awards and Distinctions assignment. We do not yet have a single procedure; looking to the future, we could provide general guidelines for improvement and consistency, for example, if we decide to discontinue an award. We have identified the areas that we would urge for improvement:

- increasing the visibility of the nomination (via the internet, post, *etc.*) to reach a wider community, *i.e.*, to get many more nominations,
- gender equality (no women are nominated for several awards), diversity and inclusion.

The Indico agenda of the first meeting of the Committee with the detailed presentations is available at the link: <https://indico.cern.ch/event/1358644/>.

The conclusion of the meeting was that there is a real need for an increase in the number of applications for most of the awards and that increasing the number

of nominees facilitates a gender-balanced selection of awards. Suggestions that could help:

- Improve the website's current layout ([www.eps.com](http://www.eps.com)) to provide clear and complete information about EPS prizes, add deadlines and guidelines, and explicitly encourage female applications in the call for nominations.

Send an e-mail to the Chairs of the Divisions/Groups, informing them of the open call for nominations for the central EPS prizes and soliciting applications.

The Committee will follow up on them.

We recognise that, logically, increasing the number of nominations implies increasing the number of unsuccessful nominations while also increasing the workload for proposers. Nevertheless, we consider that this collective investment in the future would be highly desirable for the European physics research community.

# JOURNALS REPORTS 2023

## EUROPHYSICS NEWS (EPN)



**Editor:**  
Els de Wolf

**Science Editor:**  
Ferenc Iglói

### EDP Sciences report for 2022-2023

EPN belongs to EPS and is published by EDP Sciences: the European Physical Society is in charge of the content, the layout and the delivery cost to EPS members. EDP Sciences is in charge of the printing, website hosting and advertisement.

The print run of the journal in 2023 was 18 000 copies. The print copy is delivered to:

- Each member of EPS
- Most learned Societies in Europe

- A few direct subscribers.

### Dispatch date of printed issues

#### 2022, Volume 53

- Modelling complex system - March 14<sup>th</sup>
- Machine Learning in Europe - May 12<sup>th</sup>
- Medical Physics - July 18<sup>th</sup>
- Quantum technology - September 29<sup>th</sup>
- EPS Grand Challenges for Physics - December 19<sup>th</sup>

#### 2023, volume 54

- Quantum entanglement - February 27<sup>th</sup>
- Citizen science - May 11<sup>th</sup>
- Urban and Green physics - July 6<sup>th</sup>
- Magnetism - October 9<sup>th</sup>
- European physics infrastructures - December 15<sup>th</sup>

### Website

The journal is available on [euromphysics.org](https://euromphysics.org)

### The website includes:

- a PDF of each Features with metrics (downloads information)
- a PDF of each whole issue and a Flipbook
- Readers can register on the website to receive by email the table of contents when an issue is published. We have currently 655 subscribers to this email alert services.
- The journal is indexed in the following databases: Scopus, ADS, Ebsco, J-Gate, CNKI, Inspec, Dimensions.

### Downloads

In 2022, there was 153 789 downloads of full text on the website and in 2023, 148045 downloads of full text<sup>1</sup>.

The most downloaded papers in 2022 (among recent papers) are listed in table 1.

The most downloaded papers in 2023 (among recent papers) are listed in table 2.

ARTICLE TITLE	PBYEAR	ABSTRACTS	FULL-TEXT PDF
New horizons in black hole astrophysics	2021	73	805
Breakthrough at the NIF paves the way to inertial fusion energy	2022	645	508
Spin glasses and optimization in complex systems	2022	407	496
Deep learning for magnetism	2022	551	423
Probing the neutrino mass scale with the KATRIN experiment	2022	438	238
Quantum simulation and computing with arrays of single Rydberg atoms	2022	132	175
Machine learning in present day astrophysics	2021	544	171
Where are those promising solid-state batteries?	2021	320	163
Plasma medicine: the great prospects when physics meets medicine	2022	388	158
Tiny robots made from biomolecules	2022	323	157

▲ Table 1.

▼ Table 2.

ARTICLE TITLE	PBYEAR	ABSTRACTS	FULL-TEXT PDF
New horizons in black hole astrophysics	2021	38	739
Physics for environment and sustainable development	2022	54	615
Breakthrough at the NIF paves the way to inertial fusion energy	2022	715	509
Deep learning for magnetism	2022	224	407
Spin glasses and optimization in complex systems	2022	128	390
The lifetime of components in a fusion reactor	2021	53	259
A history of quantum entanglement and Bell's inequality - Theoretical foundations for optical quantum experiments with entangled photons	2023	382	238
Introduction: Grand Challenges for physics	2022	235	235
Quantum fluids at work: Superconductivity and superfluid helium at the large hadron collider	2022	34	227
Quantum non-locality: from denigration to the nobel prize, via quantum cryptography	2023	457	193

<sup>1</sup> Until 31 November 2023. Downloads for December are not available.



The top visiting country in 2023 were:

Data of Google Analytics are no longer available in 2023.

TOTAL	16,362
United States	3,710
China	1,560
Germany	1,183
United Kingdom	859
France	841
India	826
Italy	580
Netherlands	515
Spain	452
Canada	418

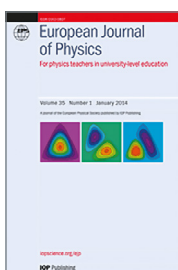
## Advertising

Advertising revenue for EPN remains robust, averaging a significant amount per issue with a diverse range of advertisers from various industries such as cryogenics, optics, vacuum, and more. Advertisers particularly appreciate its broad distribution among different physical societies and its presence at international conferences like the APS meeting, Photonics West, and Laser World of Photonics.

On the other hand, we have received requests for more topics and themes that cater not just to the academic but to the industrial community as well along with its practical applications.

As with other publications, there has been a strong demand for granular statistics by advertisers which is currently difficult to extract from the existing digital format of EPN but could be easily provided by other platforms such as Joomag.

## EUROPEAN JOURNAL OF PHYSICS (EJP)



**Editor in Chief:**  
Mojca Čepič

**Publisher,**  
**IOP Publishing:**  
Sophia Marcelia

### Executive summary

IOP Publishing is pleased to report to the council a successful year for European Journal of Physics (EJP). The journal continues to deliver on its dual aims of supporting the growing field of physics education research and providing valuable resources for in-service educators – actively helping to foster improved collaboration where these two facets meet.

IOP Publishing is also delighted to report that there has been a steady financial contribution to the European Physical Society, of £121,685 (EUR 142,757).

We hold a steady position with both Western Europe and the US community and have seen greater engagement from communities in Asia. Original submissions were down ~5.5% in 2023, however this is due to an effort made to decrease the number of submissions the journal was receiving that were out of scope, redundant, or trivial. Mojca Čepič [Editor-in-Chief] and Cedric Linder [Editor, PER], with input from the Editorial Board, reviewed and improved the journal scope. As a result, submissions received in 2023 have been more appropriate for EJP.

The updated EJP scope can be found here: <https://publishingsupport.iopscience.iop.org/journals/european-journal-of-physics/about-european-journal-physics/#scope>

### 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

Geographic region	ORIGINAL SUBMISSIONS (BY RECEIVED YEAR)					ACCEPTANCES (BY FINAL DECISION YEAR)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Africa	65	47	53	43	34	3	2	3	0	1
Asia	247	364	291	254	238	23	53	45	17	25
Austral Asia	29	27	28	18	11	12	13	14	6	2
Cent/s. America	55	62	70	42	56	15	26	25	8	9
E. Europe	75	72	55	61	58	22	17	19	15	9
Middle East	84	97	85	61	63	8	10	10	7	3
N. America	106	132	124	99	101	33	67	41	41	19
UK	19	27	25	25	18	8	20	8	4	5
W. Europe	111	168	137	143	127	12	73	52	43	44

▲ Table 1.

▼ Table 2.

Article type	ORIGINAL SUBMISSIONS (BY RECEIVED YEAR)					ACCEPTANCES (BY FINAL DECISION YEAR)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Papers	754	941	823	708	630	156	247	203	131	104
Letters	5	0	0	N/A	N/A	0	0	0	N/A	N/A
Review	17	29	23	33	28	3	4	3	0	4
Special Issue / Focus on	9	9	10	3	61	4	9	2	2	2
Other	15	36	12	14	10	6	21	9	8	7
<b>Total</b>	<b>800</b>	<b>1,003</b>	<b>868</b>	<b>746</b>	<b>719</b>	<b>169</b>	<b>281</b>	<b>217</b>	<b>141</b>	<b>117</b>

content, and promoting the journal at conferences. There have been a few changes to the editorial board in 2023, with a few colleagues stepping down due to personal or work-related commitments. However, we have since recruited Bor Gregorcic, Associate Professor at Uppsala University (Sweden), who specialises in the use of modern technology in physics education. IOPP and the EJP editorial team are working together on recruiting further members to join the board in 2024, specifically those with specialities in physics education research, astronomy, astrophysics, materials, quantum physics, and quantum mechanics. Expanding the board is one of the key development areas that were discussed in the 2023 board meeting, especially in relation to recruiting researchers in the early stages of their careers.

We continued to publish articles in our ongoing Focus On Physics Competitions, Guest Edited by Angela Fösel, and hope that these articles will increase the awareness of the value of physics competitions in attracting young students to science. In 2024, we will pursue further contributions to the collection Focus on Physics in Nature, Guest Edited by Joseph A Shaw and Michael Vollmer, and jointly published by Physics Education and European Journal of Physics. These contributions will help shape the teaching of physics in nature at high-school (Physics Education) and higher education level (Eur. J. Phys.) and serve as a scholarly resource for physics teachers of any kind. Furthermore, in January 2024, we launched a new collection, entitled Focus On Lab Works in the 21<sup>st</sup> Century. This collection is Guest Edited by Gunnar Friege, who will seek submissions focused on experimental training, as it is an integral part of studies in physics, physics teacher training and in physics courses for students.

In 2023, the article download figures decreased slightly (~0.5%) versus 2022 overall (333,925 in 2023 vs 335,674 in 2022). In 2023: 39,020 downloads were in relation to 2023 EJP content and 333,925 were the total downloads of all EJP content.

We saw a number of articles performing particularly well: see table 3 & 4.

Our highest performing articles were all published on an open access basis. In 2023,

37% of articles were published open access (OA - across IOPP, 46% of all articles were published OA on IOPScience), this is an increase in OA content compared to 2022, which was 18%. In 2023, IOPP has reached agreements, sometimes known as transformative agreements, with over 900 institutions in 40 countries. These agreements help authors manage the cost of article publication charges (APCs) for open access publishing. These typically enable authors to publish on an open access basis at no cost to themselves. IOPP research shows that OA content is downloaded 80% more than paywalled content and cited 30% more, demonstrating the substantial benefits to publishing OA.

We know that researchers do not have equal access to funds for OA publishing and, as journals continue to transition further towards open access, this economic barrier will be felt especially by authors in lower-income countries. Our waivers and discounts policy provide additional support for authors from many countries with historically

low levels of financial support, including lower-middle income economies, as categorised by the World Bank. Furthermore, we continue to fully waiver APCs for Ukrainian-based researchers.

### Marketing activity and Education subject collection page

European Journal of Physics has been marketed through a variety of channels over the last 12 months including email marketing, Targeted Google Ads, and through the 'Education' portfolio. In 2020 we launched the 'Education' subject collection page to showcase the leading international journals supporting the physics education community, by assisting in improving the standard of taught physics at all levels, from schools through to universities. EJP is a leading journal on the page and content is updated throughout the year, on a quarterly basis. Users are directed by social media, email, and advertising. In 2023 the page received 837 views. The subject collection can be

TABLE 3: TOP DOWNLOADED OF ALL EJP CONTENT IN 2023

ARTICLE TITLE	VOLUME	OA	ONLINE DATE	DOWNLOADS
Beyond velocity and acceleration: jerk, snap and higher derivatives	37.6	yes	13/10/16	22,410
'The concept of information in physics': an interdisciplinary topical lecture	36.1	yes	11/19/14	4,402
Maxwell's displacement current and the magnetic field between capacitor electrodes	43.6	yes	9/23/22	3,088
The geodynamo for non-geophysicists	41.4	yes	6/5/20	2,850
On the ball on a string demonstration of angular momentum conservation	44.6	yes	10/3/23	2,620

TABLE 4: TOP DOWNLOADED OF 2023 CONTENT

ARTICLE TITLE	VOLUME	OA	ONLINE DATE	DOWNLOADS
On the ball on a string demonstration of angular momentum conservation	44.6	yes	10/3/23	2,620
Beyond Stevin's law: the Janssen effect	44.2	yes	2/17/23	2,115
The fundamental concepts of the gravity-assist manoeuvre	44.2	yes	1/10/23	1,774
Minimally driven Kapitza oscillator: a pedagogical perspective from Newtonian mechanics and geometry	44.3	yes	4/18/23	1,454
Modular low-cost 3D printed setup for experiments with NV centers in diamond	44.3	yes	4/7/23	1,371

found online at:

<https://iopscience.iop.org/page/education>

### 2022 Highlights campaign (2023)

Our annual Highlights collection returned in 2023 and featured outstanding papers from 2022. All articles in the collection are made free to read online until the end of the year and promoted via email to all IOPP Education contacts to help encourage usage and citation of this quality content.

The 2022 Highlights can be found online at:

<https://iopscience.iop.org/journal/0143-0807>

### Conferences and events in 2023

In engaging with the community and interacting with target authors, we can maintain relationships, build confidence in researchers, and work on improving the journal profile. This interaction with the community is vital and plays a major role in our marketing plans and activities. In 2023, we focused efforts on a selected list of conferences to have a bigger presence and impact, including APS March, DPG/German Physical Association, and MRS Fall among others. In 2024, we will work with the editorial team and provide promotional material for a conference of

extreme importance to EJP, which is the International Research Group on Physics Teaching, taking place in July in Poland.

### In conclusion

From the solid base of a high functioning publishing team, the European Journal of Physics continues to increase the impact of our quality and capitalise on steady growth. With the support of the editorial board and our Editor-in-Chief we hope to increase the commissioned content we publish in 2024 and beyond, exploring topics that continue to raise the journals profile and drive growth.

## EPL



### Chair of the Board of Directors:

Prof. Petra Rudolf (EPS Groningen)

### Secretary General EPS:

Dr. Anne Pawsey (EPS Mulhouse)

### Editor in Chief (until December 2023):

Prof. J. Gonzalo Muga (Bilbao)

### Executive Editor:

Dr. Anne Ruimy (EDP-Sciences Les Ulis)

### Staff Editor:

Mr. Frédéric Burr (EPS Mulhouse)

### Production Editor:

Mrs. Barbara Ancarani (SIF Bologna)

### Business Manager (until March 2023):

Mr. David Lee (EPS Mulhouse)

### Publisher:

Mrs. Sophia Marcellia (IOPP Bristol)

### Product Manager:

Mrs. Zoe Anderson (IOPP Bristol)

### Deputy Editors (2023):

Prof. David Guéry-Odelin (France) (until December 2023), Dr. Alessandra Lanotte (Italy) (until September 2023); Dr. Xiaojie Chen (China); Dr Rosemary J. Harris (UK) (since October 2023).

### Data and Statistics

**Journal Impact Factor JIF** (Web of science). The evolution of this Impact Factor in the last years is: 2018: 1.89; 2019: 1.96;

2020: 1.95; 2021: 1.96; 2022: 1.8. EPL's position in the "Physics, Multidisciplinary" category has slowly declined during these years 37/81, 42/85, 47/86, 50/86, and 52/85. EPL is in Q3 (third quartile) in this category since 2020, which leads to a loss of attractiveness of the journal. Improvements are needed in all aspects as well as support from learned societies and researchers.

**Submissions:** The number of manuscripts received continues to decrease year on year (minus 30% in 5 years), see Fig. 1. The main reason identified is the decrease in the impact factor, which is leading to a vicious circle of decreasing submissions. To reverse this trend, we have strengthened the programme of commissioning Perspectives and Focus Issues, article types which tend to be more highly cited on average than regular Letters. The effect of this strategy on the Impact Factor is not evident so far. An even more ambitious programme of commissioning content is necessary to reverse the decay. In 2023, a working group was set up to look at other ways EPL could invest to increase its visibility and attractiveness.

**Geographical origin:** The tendency, as in previous years, is to receive most submissions from Asia (62%), with China being the dominant country (27% submissions), see Fig. 2. This dependency is a factor in the decrease of submissions, as the Impact Factor and ranking of the journal are important in this region in deciding where to publish.

It is in this context that a Chinese Deputy Editor was recruited. This dependency also brings future risks related to possible policy changes in China.

**Referees:** Of the referees contacted in 2023 we obtained 43% of reports. There is a slow decay over years (48% in 2019, 46% in 2020, 45% in 2021, 43% in 2022), but the proportion of reports received to invitations sent is good compared to other Journals. This is indicative of EPL's good reputation in the physics community.

**Turnaround times:** The submission-to-acceptance time has been very stable even during the pandemic years, between 70 and 80 days on average. The acceptance-to-online-publication time which increased during and following the COVID pandemic has now gone back to normal, 14 days on average from reception at SIF to online publication in 2023.

**Published articles:** The number of published papers is showing an erosion (435 in 2021, 382 in 2022, 359 in 2023, not including Editorials, Errata *etc.*). This is directly related to the decrease in submissions. The acceptance rate fluctuates over the years, between on 30 and 40% on average (33% in 2022, 32% in 2023 with 83 papers with decision pending as of end of January 2024). The 3 top sections in terms of articles published in 2023 were: Condensed Matter and Material Physics (58 papers), Statistical Physics and Networks (49), General Physics (43).

## Organisation

**Editor in Chief:** J. Gonzalo Muga was Editor in Chief between January 2022 and December 2023, after a four-year tenure as Deputy Editor. Gonzalo Muga handed his resignation as EiC in September 2023 effective in December, one year before the end of his term. Deputy Editor Alessandra Lanotte agreed to step in as interim Editor in Chief until the end of April 2024. A search for a new Editor in Chief was launched, with a deadline for applications on the 31<sup>st</sup> of January 2024.

**Deputy Editors:** At the end of 2023, two Deputy Editors remain on the Editorial Board: Drs. Xiaojie Chen (China) and Rosemary Harris (UK). The role of Deputy Editors consists primarily in commissioning Perspectives and Focus Issues.

**Co-Editors (CE):** 17 new Co-Editors were appointed in 2023, see <https://www.epletters.net/4dcgi/>. The total number of Co-Editors is now 59, including 37 men and 22 women, which is a good F/M ratio considering the low ratio of female physicists worldwide. The overall number of CE has been reduced in recent years, to handle fewer submissions. Renewing the Co-Editor Board is one of the important tasks of the Editor in Chief.

There were no in-person Editorial meetings in 2023, following the editorial board meeting which took place in Bilbao in November 2022. Gonzalo Muga organised several online meetings to welcome and onboard new Co-Editors throughout 2022 and 2023.

**Business manager.** Following the retirement of former EPS Secretary General and EPLA Business Manager David Lee in March 2023, the EPL Board of Directors opted not to recruit a new Business Manager but instead distribute the business management tasks within the EPLA partners. The EPS Secretary General (Anne Pawsey, EPS) and the Executive Editor (Anne Ruimy, EDP Sciences) jointly prepare EPL budgets and accounts. Anne Ruimy handles the business development and strategic aspects of the role whilst Anne Pawsey and the EPS secretariat manage the day-to-day operations including finances plus the relations with Swiss authorities. Anne Pawsey has started a project to regularise the registration of EPLA in Basel.

**IOPP:** In 2023, Sophia Marcelia, Publisher at IOPP within the Partner Publishing team, joined Zoe Anderson, Marketing Manager, in representing and delivering IOPP's contributions to the EPL publishing partnership. Sophia is replacing Zoe as the representative of IOPP in the ManCom.

## Open access

Since 2021, EPL is included in transformative open access agreements negotiated by IOPP. This allows publication in open access in EPL free of charge for a growing number of institutions and consortia (List of participating institutions at <https://publishingsupport.iopscience.iop.org/questions/institutional-open-access-agreements/>). This has contributed to a steady increase in the overall number of articles published in open access: 15 in 2020, 33 in 2021, 45 in 2022, 69 in 2023, contributing to the wider dissemination of EPL content.

With its participation in transformative agreements, EPL is compliant with the requirements of funders (as part of Plan S in particular).

## Commissioning high impact content

We are continuing to put in action the editorial strategy decided by the Board of Directors at the end of 2019. The overall editorial strategy aims to increase the impact factor and thus stop the decline in the number of high-quality articles submitted and published in the journal. It is based on increasing efforts in commissioning potentially high impact articles and collections of articles. Commissioning Perspectives is one

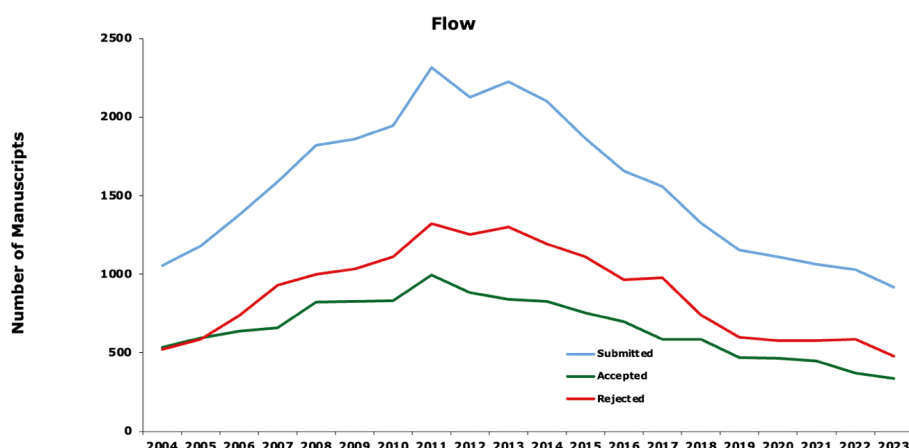
of the main tasks of Deputy Editors, with the assistance of the Staff Editor and Executive Editor. Supporting this editorial strategy is at the center of the yearly marketing plans.

**Perspectives.** Perspective articles are short reviews, with the same length as regular Letters, and written for a broader audience. Perspectives aim to highlight the significance, impact, progress and wider implications of emerging research areas. They attract 2 or 3 times more citations per article than regular articles. 32 Perspectives were published in 2023.

**Focus Issues (FIs).** FIs are collections of articles in areas of interest identified by the Editorial Board. FIs contain mainly invited papers and are edited by a team of Guest Editors and a member of the Editorial Board. The impact of Focus Issues measured by citations depends on the topic. In 2023, EPL published a Focus Issue on “Statistical Physics of Self-Propelled Colloids” edited by Hartmut Löwen, Sabine Klapp and Holger Stark, containing 18 articles and a Preface. In 2024, a new Focus Issue on “Optics, Photonics and Lasers” edited by Co-Editor Maria Raposo and colleagues is planned, with selected papers from the Photoptics 2024 conference in Rome in February (conference also supported with EPL poster prizes).

## Community engagement through supporting young researchers

In June 2022, the Board of Directors decided to look at further investing in the editorial development of EPL. A working group was set up, which proposed to deliver support schemes aiming at promoting EPL's



▲ FIG. 1: Submissions, accepted and rejected



“community engagement through supporting young researchers”. An analysis was made of the costs and benefits of various support schemes, including mentoring, webinars and masterclasses. A budget of €30,000 was allocated towards related activities in 2024.

**EPL-supported conferences.** The program of EPL-supported conferences which was put in place several years ago will continue. EPL conference support generally takes the form of “EPL poster prizes” with cash prizes, certificates and free OA publication vouchers in EPL. The presence of an EPL Editor is required to hand out the prizes and promote EPL at the event. 11 conferences and other events were supported in 2023, and over €5000 were redistributed to the community in the form of prizes and other support.

**Masterclasses.** Anne Ruimy and former EPL Editor in Chief Bart van Tiggelen gave 2 EPL-branded scientific writing masterclasses in Strasbourg and Marseille in 2023, as part of a series of 4 free masterclasses organised by the French Physical Society to commemorate its 150<sup>th</sup> anniversary. The masterclasses used EPL articles as examples, and hands-on workshops allowed participants to receive personalised feedback on their manuscripts.

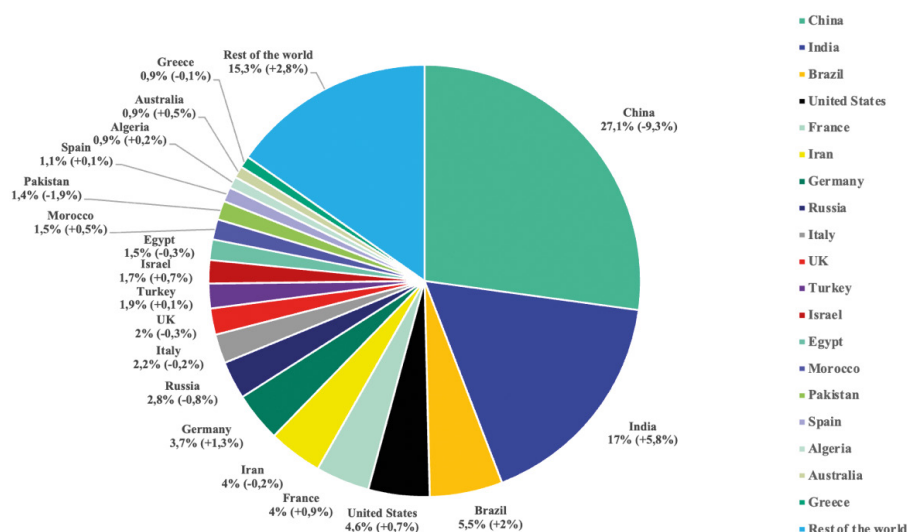
**Editorials.** Two Editorials were published in EPL in 2023: “How to write a good Letter for EPL” published in May, and “Artificial Intelligence language models in scientific writing”, published in July, both aiming to provide expert advice on good writing and good publishing practices to early career researchers.

### Other developments

In 2023, we continued and expanded activities to increase the visibility of EPL and its content. They include:

**Marketing.** To support the ongoing EPL editorial strategy, the marketing efforts provided by the IOPP marketing team focused on digital campaigns designed to raise awareness and visibility of EPL's best content. In 2023, over 8000 recipients received an email about EPL content, to generate usage of content and to call for submissions from authors, including EPL's own author database but also extending to

## Geographical repartition of submissions



▲ FIG. 2: Distribution of submissions

prospective authors who have an interest in the scope and breadth of EPL. More than 5000 recipients engaged with EPL marketing campaigns, with 50.7% engaging and clicking through to read more.

Other digital campaigns, such as Google Ads, directed traffic to EPL's Perspectives, generating more than 24,000 clicks at an average cost of £0.05 per click, as well as leaving over 1.4 million impressions. The marketing team also promoted other initiatives such as Nobel Prize contribution recognition, conference awards and sponsorship on EPL's homepage on IOPscience and X (formerly Twitter). The X channel is primarily maintained by the editorial office, and currently has close to 3000 followers.

**Collaboration with Europhysics News.** A new development since 2022 is the contribution of “EPL Highlights” to the magazine Europhysics News. In its new format, EPN publishes 5 thematic issues per year around current topics in physics. Authors of articles recently published in EPL are invited to summarise their research relevant to the EPN themes for a broad audience of physicists in one-page articles. 3 EPL Highlights were contributed in 2022, and 2 in 2023. The following “EPL Highlights” were published in EPN in 2023, in free access:

EPN 54/1 (February 13, 2023): Quantum entanglement. EPL Highlight: “Universal algorithms for quantum data learning”, based on Fanizza et al. (2022) EPL 140 28001.

EPN 54/4 (September 2023): Magnetism. EPL Highlight: “Escape dynamics in an anisotropically driven Brownian magneto-system”, based on Abdoli et al. EPL (2022) 139 21003.

**EPL Highlights.** At the beginning of every year, EPL also promotes its own Highlights of the content published during the previous year. The “2022 EPL Highlights” published in early 2023 were a selection of 38 articles published in EPL in 2022 that had a large impact on the international community, as measured by their high number of downloads or citations, or by their high Altmetric attention score.

**Collaboration with other European physics journals.** During 2023, we established informal links between EPL and the EPJ journal series (European Physical Journal). Several common events were organized between EPL and EPJ in 2023: EPL and EPJ sponsorship of the EPS Young Minds meeting in Naples in May, EPL and EPJ poster prizes at the SFP general congress in Paris in July. A joint EPL-EPJ masterclass at the EPS Forum in Berlin in March 2024 has been organised, in partnership with the EPS Young Minds. We believe that initiatives to combine efforts to improve the visibility of European physics journals are necessary in a context of increasing competition in the global physics publishing landscape, particularly from full OA Publishers with more aggressive publishing practices.





# PRIZES AWARDED IN 2023

DIVISION	PRIZE	LAUREATE
Condensed Matter Division	EPS Europhysics Prize	Prof Claudia Felser (Max Planck Institute for Chemical Physics of Solids, Dresden, Germany) Prof Andrei Bernevig (Professor of Physics at Princeton University in the United States and Visiting Ikerbasque Professor at Donostia International Physics Center in Spain)
Physics Education Division	EPS Physics Education Division award, - GIREP-EPEC conference	Mr. Sebastian Bauer (Humboldt-Gymnasium Vaterstetten, Germany)
High Energy & Particle Physics Division	EPS High Energy and Particle Physics Prize	Prof Cecilia Jarlskog (Technical University of Lund, Sweden) Daya Bay and RENO
	EPS Cocconi Prize	SDSS/BOSS/eBOSS
	EPS Gribov Medal	Prof. Netta Engelhardt (Harvard University)
	Young Experimental Physicist Prize	Dr. Valentina Cairo (CERN, Geneva, Switzerland)
	Outreach Prize	Prof. Jay Armas (University of Amsterdam)
Plasma Physics Division	EPS Hannes Alfvén Prizes	Prof. Pisin Chen (National Taiwan University, Taipei, Republic of China) Prof. James Benjamin Rosenzweig (University of California, Los Angeles, USA) Prof. Chandrashekar Janardan Joshi (University of California, Los Angeles, USA)
	EPS Plasma Physics Division PhD Research Award	Dr. Luis Gil (Instituto Superior Tecnico, Universidade de Lisboa, Portugal) Dr. Maurizio Giacomini (Swiss Plasma Center, EPLF, Lausanne, Switzerland) Dr Livio Verra (Technical University Munich, Germany) David Hosking (University of Oxford, UK) Annemie Bogaerts (University of Antwerp, Belgium) Georgi Trenchev (D-CRBN, Belgium)
Quantum Electronics & Optics Division	2023 EPS Quantum Electronics Prizes Applied	Prof. Giulio Cerullo (Politecnico di Milano, Milan, Italy)
	2023 EPS Quantum Electronics Prizes Fundamental	Prof. Vahid Sandoghdar (Max Planck Institute for the Science of Light, Erlangen, Germany) (for fundamental aspects) for ground-breaking research on the efficiency of light-matter interaction in quantum optics and biophysics, leading to single-molecule strong coupling and label-free detection of small proteins)
	EPS Fresnel Prize	Dr. Xiaochun Gong (East China Normal University, Shanghai, China) Prof. Chao Zuo (Nanjing University of Science and Technology, Jiangsu, China)
European Solar Physics Division	ESPD - joint European Solar Physics Division (Patricia Edwin PhD Thesis Prize from the Solar Physics Division)	Dr. Yutto Bekki (Max Planck Institute for Solar System Research (MPS))
	ESPD Giancarlo Noci Early Career Researcher (Postdoc) Prize	Dr. Jack Jenkins (Postdoctoral Researcher at KU Leuven, Belgium, at the time of the award)
	ESPD Kees Zwaan Inspirational Community Prize	B. Sc. Martina Pavelková (Astronomical Institute of the Czech Academy of Science (Czech Republic))
	Statistical & Nonlinear Physics Division	EPS Statistical and Nonlinear Physics Prize
Accelerator Group	EPS-AG Rolf Widerøe Prize	Prof. Katsunobu Oide (KEK CERN / University of Geneva, Switzerland)
	EPS-AG Gersh Budker Prize	Dr. Mikhail Krasilnikov (DESY/Zeuthen)
	EPS-AG Frank Sacherer Prize	Dr. Xingchen Xu (Fermilab, Batavia, USA)
	Bruno Touschek Prize	Mr. Matthew Signorelli (Cornell University, Ithaca, USA)
EPS	EPS Gero Thomas Commemorative Medal	Dr. Christophe Rossel (IBM Research Zurich, Switzerland)
	EPS Early Career Prize	Dr. Adolfo Grushin (Institut Néel, CNRS, Grenoble, France) Dr Jose Lado (Aalto University, Espoo, Finland)
	EPS Fellows	Prof. José María De Teresa (Instituto de Nanociencia y Materiales de Aragón (CSIC-Universidad de Zaragoza), Spain) Dr. Nicola Bianchi (INFN Frascati, Diplomatic Counsellor for Science & Technology, Italian Embassy in Singapore)
	EPS Honorary Member	Prof. Karlheinz Langanke (GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt, Germany)
	Emmy Noether Distinction Full Career	Prof. Monika Ritsch-Marte (Institute of Biomedical Physics, Dept. of Physiology & Medical Physics, Medical University of Innsbruck (Medizinische Universität Innsbruck) Austria)
	Emmy Noether Distinction Mid Career	Prof. Ilaria Zardo (Department of Physics, University of Basel, Switzerland)

### Atomic Molecular and Optical Physics Division



**Chair:** Alicia Palacios

**Sections**

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

**Conferences**

- EGAS 54
- XXXIII ICPEAC / ICPEAC 2023

**Website**

- [www.eps.org/eps-amopd](http://www.eps.org/eps-amopd)

### High Energy And Particle Physics Division



**Chair:**

Fabio Maltoni

**Conference**

- EPS-HEP Conference

**Prizes**

- EPS HEPP Physics Prize
- Giuseppe and Vanna Cocconi Prize
- Gribov Medal
- Young Experimental Physicist Prize
- Outreach Prize

**Website**

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

### Condensed Matter Division



**Chair:** José María De Teresa

**Sections**

- Liquid matter
- Low Temperature Physics
- Magnetism
- Semiconductors and Quantum Materials
- Soft Condensed Matter and Biophysics
- Structural and Dynamical Properties of Solids
- Surfaces and Interfaces

**Conferences**

- CMD30
- ECOSS-36
- ESM2023
- JEMS2023

**Prize**

- EPS Europhysics Prize

**Website**

- [www.eps.org/eps-CMD](http://www.eps.org/eps-CMD)

### Nuclear Physics Division



**Chair:** Alison Bruce

**Conferences**

- No conference organised in 2023

**Website**

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

### Plasma Physics Division



**Chair:**

Kristel Crombé

**Sections**

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

**Conferences**

- 49<sup>th</sup> EPS Conference on Plasma Physics

**Prizes**

- PS Hannes Alfvén Prize
- Innovation Prize
- PhD Research Awards

**Website**

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

### Environmental Physics Division



**Chair:** Johannes Orphal

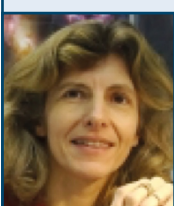
**Conferences**

- No conference organised in 2023

**Website**

- [www.eps.org/group/EPD](http://www.eps.org/group/EPD)

### Gravitational Physics Division



**Chair:** Mairi Sakellariadou

**Conference**

- 4<sup>th</sup> GPD Conference

**Website**

- [www.eps.org/group/GPD](http://www.eps.org/group/GPD)

### Physics Education Division



**Chair:** Sascha Schmeling

**Conference**

- GIREP-EPEC conference

**Prizes**

- EPS Physics Education Division award

**Website**

- [www.eps.org/group/PED](http://www.eps.org/group/PED)









**European Physical Society**

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