

The activities of the EPS Nuclear Physics Division



Alessandra Fantoni INFN - LNF
EPS Chair of the Nuclear Physics Division
EPS Executive Committee



NuPECC Long Range Plan 2024 Presentation

Brussels, November 19th 2024



The European Physical Society

The screenshot shows the homepage of the European Physical Society (EPS). At the top left is the EPS logo with the tagline "more than ideas". A navigation menu includes: ABOUT US, MEMBERSHIP, DISTINCTIONS, EVENTS, SUPPORT, EDUCATION, PUBLICATIONS, POLICY, and RESOURCES. A search bar is located at the top right. The main content area features a large banner for "inspiring physicists" and "e-EPS October 2024". Below this are three columns: NEWS, EVENTS, and ACTIVITIES. The NEWS column lists several recent events and announcements. The EVENTS column features a "Calendar of events" graphic. The ACTIVITIES column lists various programs and workshops. On the right side, there is a "COMMUNITY SEARCH" bar, a "SIGN IN" section with "Login with Facebook" and "Login with LinkedIn" buttons, and a "Posts from @EuroPhysSoc" section showing a "Nothing" post.

<https://www.eps.org/>

News:

News from Collaborations, Celebrations, EPS Divisions/Group prizes, EPS Distinctions & Awards

Events:

EPS Forum, Various Conferences...

Activities:

Science Competition, Report from Conferences...

Social Networks:

Facebook, X...

Publications:

Issue of e-EPS, Various Calls....

The European Physical Society

Facilitating Physics Research:

Divisions →

12 Scientific Divisions

Atomic, Molecular and Optical Physics Division
Condensed Matter Division *see related sections*
Physics Education Division

Environmental Physics Division
Gravitational Physics Division
High Energy & Particle Physics Division
Nuclear Physics Division

Division of Physics in Life Sciences
Plasma Physics Division *see related sections*
Quantum Electronics & Optics Division

European Solar Physics Division
Statistical & Nonlinear Physics Division

Groups →

6 Interdisciplinary Thematic Groups

Accelerator Group
Computational Physics Group
Energy Group
History of Physics Group
Physics for Development Group
Technology and Innovation Group

Scientific Journals Publications

<https://www.eps.org/page/publications>

EuroPhysics Letter (EPL), European Journal of Physics (EJP), EuroPhysics News (EPN), electronic EPS (e-EPS)....

Conferences & Grants

https://www.eps.org/page/support_grants

Europhysics Conference Grant, EPS Poster Prize, Individual Member Travel Grant, Invited Speaker Grant, EPS Award for pre-University International Physics Competition.....

Prizes & Awards

<https://www.eps.org/news/660772/EPS-Distinctions-and-Awards-Call-for-nominations.htm>

EPS Early Career Prize

EPS Emmy Noether Distinctions (mid & full career)

EPS Achievement Award

EPS Fellows, Gero Thomas Medal, Honorary Members.

Once per year, deadline typically at the end of January

+ Divisions/Groups Prizes

The EPS Nuclear Physics Division (NPD)

<http://www.eps.org/?page=npd>

PRINT PAGE | CONTACT US | SIGN IN | JOIN EPS

European Physical Society
more than ideas

COMMUNITY SEARCH
Enter search criteria...

ABOUT US | MEMBERSHIP | DISTINCTIONS | EVENTS | SUPPORT | EDUCATION | PUBLICATIONS | POLICY | RESOURCES

Divisions: Nuclear Physics Division

Group Pages Directory & Features

The object of the Division shall be to assist the advancement and dissemination of knowledge in nuclear physics

We define nuclear physics as the study of nuclei, their structure, disintegration, interactions and other properties, including the constituent parts of the nucleus and their interactions with one another and with nuclei and with the atomic environment.

The divisional activities will include the organisation of and approval of conferences and summer schools in this field of study and also furthering the exchange of scientists and students.

Some of the divisional activities are the recognition of outstanding achievements by giving a number of prestigious prizes and awards, organisation and approval of conferences, publication of topical papers, and furthering the exchange of scientists and students.

SIGN IN

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OR

afantoni

.....

Remember Me

PUBLICATIONS

The March 2023 issue of e-EPS is out!
28/03/2023

Goal of the EPS Nuclear Physics Division

- Link with :
- PANS & Outreach
 - NuPECC
 - e-EPS
 - EPS
 - social

Latest Prize Winners

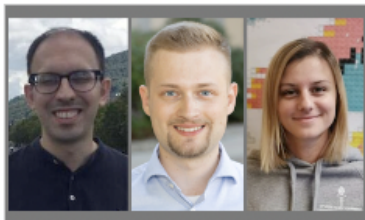
The Nuclear Physics Division recognises outstanding achievements with three prestigious awards. The latest prize winners are shown below.



Philip Walker, winner of the 2022 Lise Meitner Prize



Alberto Del Guerra and Laura Harkness-Brennan, winners of the ANP Prize 2024



Giuliano Giacalone, Jonas Karthein and Ágota Koszorús, winners of the PhD Prize 2021

Latest prize winners announced by the NPD board

2024 EPS-APS Landau-Spitzer Prize: Call for nominations
16/01/2024

EPN is in need of a new Editor in Chief!
14/12/2023

International Young Scientist Research Journal, a publication of AYIMI
10/05/2022

WOMEN IN PHYSICS

Women in Physics and the News: Women scientists don't get authorship they should, new study suggests
15/11/2022

Gender Equality Plans as an eligibility criterion in Horizon Europe
20/06/2022

"LAS FÍSICAS EN CIFRAS: UNIVERSIDADES" : Report of the specialised group of "women in physics" of the Spanish Royal Physics Society

The EPS Nuclear Physics Division (NPD)

<http://www.eps.org/?page=npd>

Recent Blog Activity

Report of the NPA-XI 2024 (Dresden, 16-20/09/2024)

Post by Alessandra Fantoni, Saturday 26 October 2024

Blog: News

COMMENTS (0) [Subscribe](#)

Call for 1 NPS elected member

Post by Alessandra Fantoni, Monday 12 August 2024

Blog: News

COMMENTS (0) [Subscribe](#)

2024 Applied Nuclear Physics prize

Post by Alessandra Fantoni, Monday 26 August 2024

Blog: News

COMMENTS (0) [Subscribe](#)

Call for the EPS NPD Lise Meitner Prize 2024

Post by Gina Gunaratnam, Tuesday 16 July 2024

Blog: News

COMMENTS (0) [Subscribe](#)

Visit of the NPD Board to the Oslo Cyclotron for the 87th meeting

Post by Alessandra Fantoni, Tuesday 21 May 2024

Blog: News

COMMENTS (0) [Subscribe](#)

[View All Blogs »](#)

Upcoming Events [Month View]

Deadline for Lise Meitner call
FRIDAY 6 DECEMBER 2024

EuNPC 2025
MONDAY 22 SEPTEMBER 2025

Blog Activity:

Call for bids for conferences
Call for Prizes & Awards
Call for NPD elected board members
EPS News related to NPD
Highlights from Conferences
Assigned Prizes & Awards

Calendar:

Next events or deadlines related to the NPD Board or of potential interest to the Nuclear Community (i.e. Conferences)

The EPS Nuclear Physics Division (NPD)

https://www.eps.org/members/group_content_view.asp?group=85199&id=508772

Board Activities

Some of the activities of the Board of the Nuclear Physics Division:

Organisation of the European Nuclear Physics Conference series (EuNPC).

Organisation of the Nuclear Physics in Astrophysics Conference series (NPA).

Organization of the Applied Nuclear Physics Conference series (ANP)

Awarding three prestigious prizes: the Lise Meitner Prize, the Applied Nuclear Physics Prize (ex IBA-Europhysics Prize) and the EPS Nuclear Physics Division PhD Prize.

Provides input to the EPS on issues related to nuclear physics and relations to other European and international bodies interested in nuclear physics and policy.



Board Members

[Table of current board members](#)

[Table of previous board members](#)

Board Meetings

[Table of board meetings](#)

Statutes and By-laws

[Statutes of the division](#)

[By-laws of the division](#)

⇒ Created in 1973

Contacts

[Alessandra Fantoni](#), chair

[Zsofia Kertész](#), scientific secretary

[Alison Bruce](#), past chair

A. Fantoni

Board Meetings

% !

Nr	Date	Place	Executive Summary
87	09-10 May, 2024	Oslo, Norway	
86	03-04 November, 2023	Paphos, Cyprus	pdf
85	17-18 May, 2023	Zagreb, Croatia	pdf
84	28-29 October, 2022	Santiago de Compostela, Spain	pdf
83	26-27 May, 2022	Frascati, Italy	pdf
82	02-03 November, 2021	Virtually - due to COVID 19	
81	05-07 May, 2021	Virtually - due to COVID 19	
80	21-22 October, 2020	Virtually - due to COVID 19	
79	18-19 May, 2020	Virtually - due to COVID 19	
78	30 Sept.-1 Oct., 2019	Frankfurt, Germany	executivesummary-frankfurt.pdf
77	01-02 Apr, 2019	Jyväskylä, Finland	executivesummary-jyvaskyla.pdf
76	03-04 Sept, 2018	Bologna, Italy	executivesummarybologna.pdf
75	28-29 May, 2018	Istanbul, Turkey	executive-summary-istanbul-m.pdf

⇒ Chair elected in 2023, chair in 2024-2025, past chair 2026

⇒ Scientific secretary from February 2022

⇒ Chair in 2022-2023, past chair 2024

Board Composition:

- at maximum 10 elected members (via EPS calls for nominations)
- at maximum 10 co-opted members, nominated by the Board, taking into account the expertise and the geographical & gender distributions ($N_{\text{coopted}} \leq N_{\text{elected}}$)
- 3 observers:
 - EPS-HEPP Division
 - NuPECC
 - ANPhA (Asian Nuclear Physics Association)

Last NPD board meeting

Orsay, 28-29/10/2024

Next in May 2025 @Catania

The EPS-NPD Conferences: NPA XI 2024

<https://events.hifis.net/event/540/>



Nuclear Physics in Astrophysics XI

15–20 Sept 2024

TU Dresden, Germany; Trefftz-Bau (TRE/2171)

Europe/Berlin timezone

Biannual Conference

XI edition

First one in Debrecen in 2002

15-20/09/2024@Dresden (D)

Overview

News

Scientific scope

Confirmed Invited
Speakers

Scientific Advisory Board

Important dates

Abstract Submission

Travel and Directions

Registration and financial
support

Accommodation

The Nuclear Physics in Astrophysics XI (NPA-XI) conference brings together scientists working in nuclear astrophysics, including laboratory experiments, theoretical nuclear physics, astronomy, and astrophysics.

NPA-XI is part of a series of conferences taking place every two years, under the auspices of the [Nuclear Physics Division](#) of the [European Physical Society](#).

NPA-XI will take place from 15 - 20 September 2024 at TU Dresden, Germany. The conference will be preceded by a scientific school, the NPA-XI school, in the week of 8-13 September.

Abstract submission has opened, see link [abstract submission](#) in the left column.



5 (+1) NPD Board members
into Scientific Advisory
Board:

Alessandra Fantoni

Ann-Cecilie Larsen

Silvia Leoni

Zsolt Podolyak

Giuseppe Verde

(+ Rene Reifarth)

Next edition in 2026

Call of bid => at the end of the year

The EPS-NPD Conferences: NPA XI 2024

Report

Participants:

- 191 participants: 126 PhD scientists (of which 14 post-docs with less than 2y experience), 53 graduated (PhD) students, 12 undergraduated; 41% young participants => encouraging given the fact that there is still much to study and learn regarding the synthesis of the chemical elements in the cosmos.
- 18 EU+ countries, 10 countries in Americas, Asia & Africa
- 1/3 from Germany, 6+ from Italy, USA, UK, France, Hungary, Belgium & Poland
- female participants 28%

Talks:

- No parallel sessions
- 33 invited & 48 contributed talks in plenum (female invited talks 36%)
- 80 posters (most of them with a presentation of one-minute poster pitch in the plenum)
- 4 poster prizes (200-400€) sponsored by EPJA & NuPECC

Report of the conference on the NPD Blog activity:

<https://www.eps.org/blogpost/739426/505172/Report-of-the-NPA-XI-2024-Dresden-16-20-09-2024>

The EPS-NPD Conferences: ANPC 2024

<https://hnps.eu/ANP2024/>

- Strongly desired and initiated by NPD
- First Edition of EPS Applied Nuclear Physics in September 2021 @ Prague
- Second Edition @ Thessaloniki 22-27/09/2024, Aristotele University's Research Dissemination Center (KEDEA)
- Scientific Advisory Board from NPD: A. Fantoni, Z. Kertész, T. Sajavaara (+ I. Bogdanovic Radovic)

Report

Participants:

- About 160 participants, great participation of young researchers

Talks:

- Plenary + 2 parallel sessions divided in 7 topics
- 3 EPS & EPS-NPD invited talk ★
- 6 invited & 121 contributed talks in 2 parallel sessions
- 32 posters
- 3 poster prizes (tablets) sponsored by Arizona Carbon Foil & EPS

Proceedings:

- Special Volume of ARI (Applied Radiation and Isotopes, 1.6 IF) with peer review – deadline 03/03/2025
- Special Proceedings volume in the HNPS Advances in Nuclear Physics (HNPS ANP) – open access with DOI

Ion Beam Analysis

Neutron Physics and Applications

Medical Physics Applications

Environmental Applications

Data in Nuclear Applications

Detectors

Accelerators, Instrumentation & Nuclear Technology



Next edition in 2027 (together with the ANP prize)
Call of bid => at the beginning of next year

The EPS-NPD Conferences: ANPC 2024



3 EPS & EPS-NPD invited talks:

AF: *The European Physical Society and its Nuclear Physics Division*

Alberto Del Guerra: *A life for radiation medical physics*

Laura Harkness-Brennan: *Next Generation Gamma-ray Imaging*

NPD ANP Prize 2024

Prof. Alberto Del Guerra - University of Pisa and INFN (Italy)

“in recognition of his outstanding and seminal contribution to the development of new radiation detectors and methods for clinical and preclinical molecular imaging systems and applications”

Prof. Laura Harkness-Brennan - University of Liverpool (UK)

“in recognition of her outstanding contribution to the application of advanced gamma-ray spectroscopy together with imaging technology and techniques to the areas of nuclear medical imaging, homeland security, nuclear decommissioning and environmental monitoring.”

Report of the winners of the Applied Nuclear Physics prize on the NPD blog activity:

<https://www.eps.org/blogpost/739426/503142/2024-Applied-Nuclear-Physics-prize>



The EPS-NPD Conferences: EuNPC 2025

- <https://indico.in2p3.fr/event/30430/>
- Location: Caen, 22–26/09/2025
- The main NPD conference
- All NPD members inside the IAC & as conveners
- First circular out
- Important dates defined:
 - Registration open 01/03/2025
 - Call for proposals March 2025
 - Notification oral/poster presentation May 2025
 - Early registration deadline 30/06/2025

Next edition in 2027 (to be shifted with INPC)
Call of bid => at the end of the year



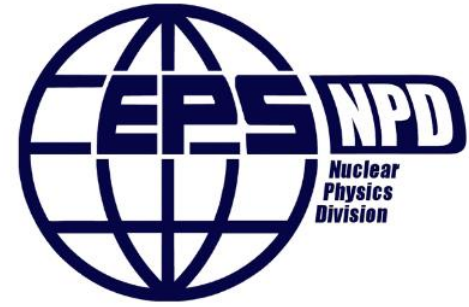
TOPICS

1. Accelerators and Instrumentation
2. Nuclear Structure, Spectroscopy and Dynamics
3. Nuclear Astrophysics
4. Astroparticle Physics and Synergies with Nucl. Phys.
5. Heavy Ion Collisions and QCD Phases
6. Hadron Structure, Spectroscopy and Dynamics
7. Fundamental Symmetries and Interactions
8. Nuclear Physics Applications
9. Few-Body Systems

Open Science and Data in Nuclear Physics (*Round Table*)
Nuclear Science - People and Society (*Round Table*)

The EPS-NPD Prizes: Applied Nuclear Physics Prize

The Nuclear Physics Division of the EPS awards the IBA-Europhysics Prize in Applied Nuclear Science and Nuclear Methods in Medicine.



From 2004; every 2-3 years

Last IBA-EuroPhysics Prize in 2020 to Thomas Haberer with Ceremony at ANPC 2021

Conference *“for outstanding scientific discoveries and innovative technological breakthroughs in the use of high energy accelerators and heavy ion beams for the Heavy Ion Cancer therapy”*

<https://www.eps.org/blogpost/751263/355787/2020-IBA-Europhysics-Prize-to-the-pioneer-of-ion-beam-cancer-therapy-Thomas-Haberer>

No more support from IBA => new NPD Prize for Applied Nuclear Physics from 2024:

EPS Diploma + Cash (3k€) from the NPD board

Call from January till April 2024

https://www.eps.org/members/group_content_view.asp?group=85199&id=1067541

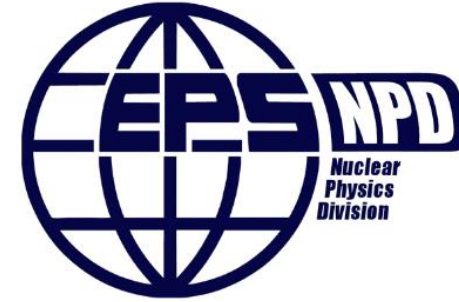
ANP 2024 to Alberto Del Guerra & Laura Harkness-Brennan

Award and Ceremony at the ANPC 2024 in Thessaloniki

Next call in 2026
Award at the ANP Conference in 2027

The EPS-NPD Prizes: PhD best thesis

Awarded by the EPS Nuclear Physics Division Board, recognizing the excellence of a recent PhD thesis in experimental, theoretical or applied nuclear physics.



- Started in 2012
- Prize awarded every 3 years to 3 people for PhD thesis in experimental, theoretical or applied nuclear physics in a member country of EPS
- Each winner receives:
 - EPS diploma
 - support to a maximum value of 1000 € to attend the EuNPC Conference
 - talk at the EuNPC conference to present his/her work
- Last prize in 2021 for PhD thesis between 01/01/2018-31/12/2020
 - <https://www.eps.org/blogpost/739426/478275/PhD-best-thesis-award-2021>
 - call February 2021, winners selection on Fall 2021, ceremony + talks @ EuNPC 2022
- Current prize in 2024 for PhD thesis between 01/01/2021 – 31/12/2023

- 26 PhD theses received
- Selection done at last NPD October meeting
- To be approved by EPS ExComm
- Winners to be informed

Next call at the end of 2026 for the years 2024-2025-2026 Award at the EuNPC in 2027

=> call January 2024, deadline on April 30th

https://www.eps.org/members/group_content_view.asp?group=85199&id=665582

- Ceremony at the EuNPC 2025 Conference

The EPS-NPD Prizes: Lise Meitner



The Nuclear Physics Division of the EPS awards the prestigious Lise Meitner Prize every second year to one or several individuals for outstanding work in the fields of experimental, theoretical or applied nuclear science.



Bi-annual prize (even years)
Prize:

- Lise Meitner medal
- EPS diploma
- Cash (5k€) by sponsor

https://www.eps.org/members/group_content_view.asp?group=85199&id=620932

- Started in 2000
- Last LM prize in 2022, given to Philip Walker during EuNPC 2022

<https://www.eps.org/blogpost/739426/475026/The-2022-EPS-NPD-Lise-Meitner-awarded-to-Philip-Walker>

Philip Walker (University of Surrey, United Kingdom) for his outstanding developments in the study and understanding of isomeric states including critical insights into possible isomer applications, such as energy storage and coherent gamma-ray emission. He has also led in the development and exploitation of a range of experimental techniques, from low-energy isotope separators to high-energy storage rings, which will also extend the isomer research opportunities with the new generation of radioactive-beam facilities.

- Current LM prize: call for nominations in July, **deadline 06/12/2024**, ceremony at EuNPC 2025

<https://www.eps.org/blogpost/739426/496944/Call-for-the-EPS-NPD-Lise-Meitner-Prize-2024>

Next call in 2026
Award at the EuNPC Conference in 2027