

### 2025 EPS High Energy Particle Physics Prizes



persons or to collaboration(s).

have advanced our understanding of strong interactions in their non-perturbative regime. In particular,

the way to accurate predictions in hadron physics and in the standard model;

The High Energy and Particle Physics Prize, for an outstanding contribution to High Energy Physics in an experimental, theoretical or technological area, will be awarded to one or more

- The 2025 EPS High Energy and Particle Physics Prize is awarded to Jürg Gasser, Heinrich Leutwyler and Martin Lüscher for ground-breaking contributions to new theoretical methods that
- to Gasser and Leutwyler for the formulation of low-energy effective field theory, which opened
- to Lüscher for leading developments on the formulation of QCD on the lattice, which enabled the rigorous calculation of non-perturbative contributions to physical observables from first principles.



#### The 2025 High Energy and Particle Physics Prize of the EPS

for an outstanding contribution to High Energy Physics

is awarded to

### Jürg Gasser and Heinrich Leutwyler

for their ground-breaking contributions to new theoretical methods to advance our understanding of strong interactions in their non-perturbative regime. In particular, for the formulation of low-energy effective field theory, which opened the way to accurate predictions in hadron physics and in the standard model.

Mairi Sakellariadou

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President **European Physical Society** 

EPS- HEP Conference, 07-11 July 2025, Marseille, France



Tamo Malla

Chair EPS High Energy and Particle Physics Division



#### The 2025 High Energy and Particle Physics Prize of the EPS

for an outstanding contribution to High Energy Physics

is awarded to

#### **Martin Lüscher**

for ground-breaking contributions to new theoretical methods to advance our understanding of strong interactions in their non-perturbative regime. In particular, for his leading developments on the formulation of QCD on the lattice, where non-perturbative contributions to physical observables can be computed rigorously from first principles.

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# be awarded to one or more individuals or to one or more collaborations.

The 2025 Giuseppe and Vanna Cocconi Prize is awarded to the Fermi-LAT and Fermi-GBM collaborations for revolutionizing the field of gamma-ray astronomy, providing the detection and catalogs of thousands of new gamma-ray sources including pulsars, the first detection of an electromagnetic counterpart to a neutrino IceCube event, the identification of more than two thousand gamma ray bursts, and the first detection of the electromagnetic counterpart to the gravitational wave event GW170817 from the merger of two neutron stars.

The Giuseppe and Vanna Cocconi Prize, for an outstanding contribution to Particle Astrophysics and Cosmology in the last fifteen years, in an experimental, theoretical or technological area, will



#### The 2025 Giuseppe and Vanna Cocconi Prize

for an outstanding contribution to Particle Astrophysics and Cosmology

is awarded to the

#### **Fermi-LAT collaboration**

for revolutionizing the field of gamma-ray astrophysics, providing the detection and catalogs of thousands of new gamma-ray sources, including pulsars, and the first detection of an electromagnetic counterpart to a neutrino IceCube event, marking a cornerstone in the era of multi-messenger astronomy.

Mairi Sakellariadou

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President European Physical Society

EPS- HEP Conference, 07-11 July 2025, Marseille, France

Fabio Maltoni

Jaho Maxa-

Chair EPS High Energy and Particle Physics Division



Represented by David Smith



#### The 2025 Giuseppe and Vanna Cocconi Prize

for an outstanding contribution to Particle Astrophysics and Cosmology

is awarded to the

### **Fermi-GBM collaboration**

for its groundbreaking contributions to the study of transient gamma-ray phenomena and multimessenger astronomy, detecting more than 2,000 gamma-ray bursts, and for the first detection of the electromagnetic counterpart to the gravitational wave event GW170817 from the merger of two neutron stars.

Mairi Sakellariadou

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President European Physical Society

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Fabio Maltoni

Jaho Maxa-

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Represented by Adam Goldstein





# Physics and/or Field Theory.

The Gribov Medal, for outstanding work by an early career researcher (maximum of 8 years excluding career interruptions - of research experience following the PhD) in Theoretical Particle

The 2025 Gribov Medal is awarded to Lorenz Eberhardt for his groundbreaking contributions to modern string theory, notably for the proof of the conjectured AdS/CFT correspondence in a tractable three-dimensional setting, for offering novel insights into the solution of threedimensional gravity, and for achieving significant progress in the computation of string amplitudes.



#### The 2025 Gribov Medal

for outstanding work by a young physicist in Theoretical Particle Physics and/or Field Theory

is awarded to

### Lorenz Eberhardt

for groundbreaking contributions to modern string theory by solving deep conceptual problems with a high degree of mathematical sophistication and precision, in particular in relation to a proof of the conjectured AdS/CFT correspondence in a tractable three-dimensional setting, for novel insights into solving three-dimensional gravity, and for important progress in computing string amplitudes.

Mairi Sakellariadou

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President European Physical Society

EPS- HEP Conference, 07-11 July 2025, Marseille, France



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Chair EPS High Energy and Particle Physics Division





The Young Experimental Physicist Prize, for outstanding work by one or more early career experimental physicist (maximum of 8 years - excluding career interruptions - of research experience following the PhD) in the field of Particle Physics and/or Particle Astrophysics. The 2025 Young Experimental Physicist Prize of the High Energy and Particle Physics Division of the EPS is awarded to:

**Thea Klaeboe Aarrestad** for influential and innovative ideas, as well as high-impact contributions to the integration of modern machine learning technologies into particle physics, particularly in the hardware event-filtering systems of particle detectors, and for her leadership in pioneering novel techniques for anomaly detection and searches for new physics.

Laura Zani for outstanding work on searches for physics beyond the standard model at B-Factories, in particular dark matter portals and lepton-flavor-violating decays of the tau lepton, and for remarkable contributions to the construction, commissioning and operation of the Belle II experiment.

Awarding person: Martina Bohacova (EPS-HEPP board)

#### The 2025 Young Experimental Physicist Prize of the High Energy and Particle Physics Division of the EPS

for outstanding work of a young physicist in the field of Particle Physics and/or Particle Astrophysics

is awarded to

#### Thea Klaeboe Aarrestad

in recognition of her influential and innovative ideas, as well as her high-impact contributions to integrating modern machine learning technologies into particle physics, particularly in the hardware event-filtering systems of particle detectors, and for her leadership in pioneering novel techniques for anomaly detection and searches for new physics.

Mairi Sakellariadou

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President European Physical Society

EPS- HEP Conference, 07-11 July 2025, Marseille, France

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Chair EPS High Energy and Particle Physics Division



#### The 2025 Young Experimental Physicist Prize of the High Energy and Particle Physics Division of the EPS

for outstanding work of a young physicist in the field of Particle Physics and/or Particle Astrophysics

is awarded to

#### Laura Zani

for outstanding results in searches of physics beyond the standard model at B-Factories, in particular dark matter portals and lepton-flavor-violating decays of the tau lepton, as well as for her remarkable contributions to the construction, commissioning and operation of the Belle II experiment.

Mairi Sakellariadou

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President European Physical Society

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Chair EPS High Energy and Particle Physics Division





# promotion of diversity, in connection with High Energy Physics and/or Particle Astrophysics.

CERN or DESY.

Awarding person: Gautier Hamel De Monchenault (EPS-HEPP board)

- The Outreach Prize, for outstanding achievement in outreach, including education and the
- The 2025 Outreach Prize of the High Energy and Particle Physics Division of the EPS is awarded to the **Beamline for Schools Project** for its original, innovative and successful outreach program of global competitions for high-school teams, offering the winning teams the unique opportunity to carry out their proposed experiments at major particle physics accelerator laboratories such as



#### The 2025 Outreach Prize of the High Energy and Particle Physics Division of the EPS

for outstanding outreach achievement connected with High Energy Physics and/or Particle Astrophysics

is awarded to

### **The beamline School Project**

for their original, innovative and successful outreach program, designed as a competition open to teams of high-school students from all around the world, with the winning teams being invited to run their proposed experiments at a major particle physics accelerator laboratory (CERN or DESY).

Mairi Sakellariadou

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President **European Physical Society** 

EPS- HEP Conference, 07-11 July 2025, Marseille, France

Fabio Maltoni

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Chair EPS High Energy and Particle Physics Division



Represented by Markus Joos & Jorge Andres Villa Velez





### The Emmy Noether Distinction for Women in Physics was established in February 2013 to enhance the recognition of noteworthy women physicists with a strong connection to Europe.

## **EPS Emmy Noether Distinction** for women in physics





### The 2025 Prize is awarded to Daniela Bortoletto

for revolutionising silicon detector technology that enabled the discoveries of the top quark and Higgs boson, and pioneering key experimental methods now central to high-energy particle physics, as well as for her important engagement for female undergraduate students.

Awarding person: Mairi Sakellariadou (EPS President)

## **EPS Emmy Noether Distinction** for women in physics



The EPS awards the

#### 2024 Full Career Emmy Noether Distinction for Women in Physics

to

#### **Daniela Bortoletto**

University of Oxford and Brasenose College, United Kingdom

for revolutionising silicon detector technology, that enabled the discoveries of the top quark and Higgs boson, and pioneering key experimental methods now central to high-energy particle physics, as well as for her important engagement for female undergraduate students.

Mairi Sakellariadou

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President **European Physical Society** 

Marseille, France 2025

Petra Rudolf Pober Kudoep

Chair Equal Opportunities Committee

