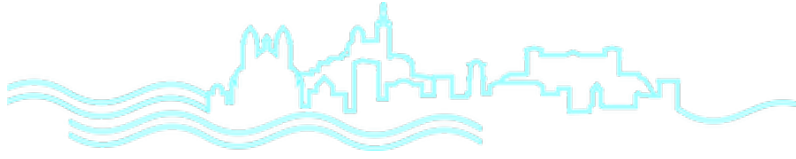


EPS-HEP 2025



Monday 7 July 2025 - Friday 11 July 2025

PALAIS DU PHARO, Marseille, France

Scientific Programme

The scientific programme of the EPS-HEP 2025 conference comprises invited plenary presentations and presentations in topical tracks as well as a poster session.

Plenary talks:

This list is subject to modifications.

LHC status
Highlights from CMS
Highlights from ATLAS
Highlights from ALICE
Highlights from LHCb
Highlights from Belle 2
Observational cosmology
Gravitational wave physics
Dark Matter theory
Dark Matter and Axion searches
Open theoretical questions in Neutrino physics
Recent results from neutrino physics experiments
Theory prospects in ultra relativistic nuclear collisions
Recent experimental results in ultra relativistic nuclear collisions
High energy QCD
Calculational techniques in particle theory
Recent results in Standard Model physics
Quarks and Leptons flavour theory
Highlights from flavor physics and rare decays
Theory prospects in Standard Model and Higgs physics
Recent results in Higgs physics
BSM theory
Searches for New Physics at the LHC
Quantum field and string theory
Detector R&D and computing
Accelerator R&D
Outreach/education and EDI
Artificial Intelligence for HEP
Sustainability in HEP
Conference summary
Parallel session and poster session topics:

T01 - Astroparticles, Gravitation and Cosmology

Most recent results and future perspectives in high-energy astroparticle physics, cosmic microwave background, large-scale structure, cosmology and gravitational waves science.

Conveners:

TBA

Contact:

TBA

T02 - Dark Matter

Physics of dark matter, both theory and experiment. Searches at colliders and via direct and indirect detection. Theoretical models behind the DM searches.

Conveners:

TBA

Contact:

TBA

T03 - Neutrino Physics

Theoretical and experimental neutrino physics. It reviews recent results from existing detectors and the reach of planned future instrumentations. Most recent theoretical developments are presented.

Conveners:

TBA

Contact:

TBA

T04 - Ultra-relativistic Nuclear Collisions

Recent developments heavy ion physics, both experimental and theoretical aspects.

Conveners:

TBA

Contact:

TBA

T05 - QCD and Hadronic Physics

Perturbative and non-perturbative regimes of strong interactions, including the production and spectroscopy of heavy and exotic hadrons.

Conveners:

TBA

Contact:

TBA

T06 - Top and Electroweak Physics

Recent developments in top quark and electroweak physics, both experimental and theoretical aspects.

Conveners:

TBA

Contact:

TBA

T07 - Flavour Physics and CP Violation

Experimental results and theoretical studies regarding the processes depending upon the flavour of quarks and leptons. Particular attention is put on the studies of CP-violation effects, rare decays and violation of the leptonic-flavour conservation and leptonic universality.

Conveners:

TBA

Contact:

TBA

T08 - Higgs Physics

Latest experimental results and theoretical developments in the scalar sector of the standard model. Studies on the Higgs boson properties at the LHC and prospects of Higgs measurements at HL-LHC and future colliders. This session will feature a joint session with BSM covering the searches for new scalar states.

Conveners:

TBA

Contact:

TBA

T09 - Beyond the Standard Model

Latest direct and indirect experimental searches of physics beyond Standard Model (BSM), new methodologies for BSM searches and recent theoretical and phenomenological progress in BSM.

Conveners:

TBA

Contact:

TBA

T10 - Quantum Field and String Theory

Recent advances and results in the more formal aspects of theoretical physics.

Conveners:

TBA

Contact:

TBA

T11 - Detectors

This session is dedicated to detectors both in operation and R&D for future experiments. Efforts towards sustainability are included.

Conveners:

TBA

Contact:

TBA

T12 - Data Handling and Computing

Data handling and also dedicated to computer, networking and software challenges related to the highly demanding needs of the HEP experiments. Efforts towards sustainability are included.

Conveners:

TBA

Contact:

TBA

T13 - Accelerators for HEP

Technologies and performances of existing and next-generation accelerators (including HL-LHC) and their potential and impact on present and future particle physics research, including efforts towards sustainability.

Conveners:

TBA

Contact:

TBA

T14 - Outreach, Education and EDI

It includes topics on science outreach and physics education at large. It also includes essential values, Equity, Diversity and Inclusion in society and their role in fundamental research and institutions worldwide.

Conveners:

TBA

Contact:

TBA

T15 - Quantum technologies in HEP (special topic 2025)

Special 2025 topic: Two-way relation of HEP with quantum information, quantum computing and quantum technologies. Impact of quantum on HEP and transfer of technologies developed in HEP to quantum industrial applications.

Conveners:

TBA

Contact:

TBA

T16 - AI for HEP (special topic 2025)

Special 2025 topic: Emerging topics, development and impact of Artificial Intelligence applications to HEP.

Conveners:

TBA

Contact:

TBA

