Physics At The Highest Energies With Colliders

Report of Contributions

Contribution ID: 1 Type: **not specified**

What do we learn from colliders?

Monday 28 July 2025 15:20 (50 minutes)

Presenter: QUIGG, Chris (Fermilab)

Session Classification: General

Contribution ID: 2 Type: not specified

Summary of EUSPP Open Symposium and follow-up

Presenter: MALTONI, Fabio (Istituto Nazionale di Fisica Nucleare)

Session Classification: General

Contribution ID: 3 Type: not specified

Lessons from HL-LHC to realize further big projects

Monday 28 July 2025 16:30 (50 minutes)

Presenter: DI GIROLAMO, Beniamino

Session Classification: General

Contribution ID: 4 Type: **not specified**

Discussion on future colliders

Monday 28 July 2025 17:20 (40 minutes)

Session Classification: General

Contribution ID: 5 Type: **not specified**

How to Get Physics Out of Muon Collider

Tuesday 29 July 2025 10:00 (50 minutes)

Presenter: LEE, Lawrence (University of Tennessee, Knoxville)

Session Classification: Experiments

Contribution ID: 6 Type: **not specified**

What you always wanted to know about Silicon Detectors Current status and future ideas

Tuesday 29 July 2025 10:50 (50 minutes)

Presenter: GREGOR, Ingrid-Maria (DESY)

Session Classification: Experiments

Contribution ID: 7 Type: **not specified**

Calorimetry R&D for the next generation of collider experiments

Tuesday 29 July 2025 12:00 (50 minutes)

Presenter: LUCCHINI, Marco (CERN)

Session Classification: Experiments

Contribution ID: 8 Type: not specified

Phenomenology questions for the ultimate colliders

Tuesday 29 July 2025 14:00 (50 minutes)

Presenter: KIM, Hyung Do

Session Classification: Theory

Contribution ID: 9 Type: not specified

Ad Astra: Quantum Field Theory and PeV Colliders

Tuesday 29 July 2025 14:50 (50 minutes)

Presenter: LUTY, Markus

Session Classification: Theory

Contribution ID: 10 Type: not specified

Beyond the TeV, beyond Naturalness (TBC)

Session Classification: Theory

Contribution ID: 11 Type: not specified

Ultimate Colliders (A Look into the Future)

Tuesday 29 July 2025 16:10 (50 minutes)

Presenter: SHILTSEV, Vladimir (Northern Illinois University)

Session Classification: Accelerators

Contribution ID: 12 Type: not specified

Recent Developments in Gamma Gamma Collider Concepts from 125 GeV to 100 TeV

Tuesday 29 July 2025 17:00 (50 minutes)

Presenters: BARKLOW, Tim; BARKLOW, Timothy (SLAC)

Session Classification: Accelerators

Contribution ID: 13 Type: not specified

The next order of magnitude jump #2 (in lumi or energy?)

Wednesday 30 July 2025 09:30 (40 minutes)

Presenter: NEUFFER, David

Session Classification: Accelerators

Contribution ID: 14 Type: not specified

Ultra-low Emittance Bunches from Laser Cooled Ion Traps for Intense Focal Points

Wednesday 30 July 2025 10:10 (50 minutes)

Presenter: Dr BROOKS, Stephen (Brookhaven National Laboratory)

Session Classification: Accelerators

Contribution ID: 15 Type: not specified

A glimpse at Quantum Sensing from a HEP perspective

Wednesday 30 July 2025 11:20 (50 minutes)

Presenter: JANUSCHEK, Friederike (DESY)

Session Classification: Experiments

Contribution ID: 16 Type: not specified

Extreme computing

Wednesday 30 July 2025 12:10 (50 minutes)

Presenter: CHANG, Philip (University of Florida)

Session Classification: Experiments

Contribution ID: 17 Type: not specified

Plasma acceleration

Wednesday 30 July 2025 14:00 (50 minutes)

Presenter: WING, Matthew (UCL)

Session Classification: Accelerators

Contribution ID: 18 Type: not specified

Coherent Colliders and Other Thought Experiments

Wednesday 30 July 2025 14:50 (50 minutes)

Presenter: D'AGNOLO, Raffaele Tito

Session Classification: Theory

Contribution ID: 19 Type: not specified

Supersymmetry beyond the TeV scale

Wednesday 30 July 2025 16:00 (50 minutes)

Presenter: VILLADORO, Giovanni

Session Classification: Theory

Contribution ID: 20 Type: not specified

Flavor beyond the TeV scale

Wednesday 30 July 2025 16:50 (50 minutes)

Presenter: CALIBBI, Lorenzo (Nankai University)

Session Classification: Theory

Contribution ID: 21 Type: not specified

From Requirements to Construction: R&D for Detectors at Future Colliders

Thursday 31 July 2025 09:20 (50 minutes)

Presenter: SESTINI, Lorenzo (Istituto Nazionale di Fisica Nucleare)

Session Classification: Experiments

Contribution ID: 22 Type: not specified

Future hadron collider physics and detectors (TBC)

Thursday 31 July 2025 10:10 (50 minutes)

Presenter: SELVAGGI, Michele (CERN)

Session Classification: Experiments

Contribution ID: 23 Type: not specified

Flavor & precision and new energy scales

Thursday 31 July 2025 11:20 (50 minutes)

Presenter: ALLWICHER, Lukas (DESY)

Session Classification: Theory

Contribution ID: 24 Type: not specified

Neutrino physics and muons at the TeV and beyond

Thursday 31 July 2025 12:10 (50 minutes)

Presenter: PASCOLI, Silvia (University of Bologna)

Session Classification: Theory

Contribution ID: 25 Type: not specified

Thinking "Outside the box" about collider experiments

Thursday 31 July 2025 14:00 (50 minutes)

Presenters: LIU, Zhen; LIU, Zhen (University of Minnesota)

Session Classification: Theory

Contribution ID: 26 Type: not specified

Muon collider physics

Thursday 31 July 2025 14:50 (50 minutes)

Presenter: WANG, Xing

Session Classification: Theory

Contribution ID: 27 Type: not specified

Open discussion

Thursday 31 July 2025 15:40 (40 minutes)

Presenters: VILLADORO, Giovanni (ICTP, Trieste); LUTY, Markus; SHILTSEV, Vladimir (Northern

Illinois University)

Session Classification: General