CCP-TEPP Knowledge Exchange Workshop for Computational Theoretical and Experimental Particle Physics

Report of Contributions

https://indico.global/e/ccp-tepp-2025

Contribution ID: **2** Type: **not specified**

Reproducibility

Presenter: BENNETT, Ed

Session Classification: Automation and reproducibility of analysis workflows in particle physics

Contribution ID: **3** Type: **not specified**

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Session Classification: Automation and reproducibility of analysis workflows in particle physics

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

Welcome and housekeeping

Monday 15 September 2025 09:30 (10 minutes)

Presenter: BENNETT, Ed

Session Classification: Computational infrastructure for particle physics

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

Working with DiRAC

Monday 15 September 2025 09:40 (30 minutes)

Presenter: HANDS, Simon (University of Liverpool)

Session Classification: Computational infrastructure for particle physics

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

GridPP Infrastructure and Future Analysis Facilities

Monday 15 September 2025 10:10 (30 minutes)

Presenter: DEWHURST, Alastair (Science and Technology Facilities Council STFC (GB))

Session Classification: Computational infrastructure for particle physics

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

Panel Q&A

Monday 15 September 2025 10:40 (10 minutes)

Presenters: DEWHURST, Alastair (Science and Technology Facilities Council STFC (GB)); HANDS, Simon (University of Liverpool)

Session Classification: Computational infrastructure for particle physics

Contribution ID: **8** Type: **not specified**

The case for automated data analysis workflows in lattice

Monday 15 September 2025 11:30 (30 minutes)

Presenter: BENNETT, Ed

Session Classification: Automation and reproducibility of analysis workflows in particle physics

Contribution ID: **9** Type: **not specified**

Analysis Facilities and SWIFT-HEP

Monday 15 September 2025 12:00 (30 minutes)

Presenter: ERIKSEN, Sam (University of Bristol (GB))

Session Classification: Automation and reproducibility of analysis workflows in particle physics

Contribution ID: **10** Type: **not specified**

Panel Q&A

Monday 15 September 2025 12:30 (10 minutes)

Presenter: BENNETT, Ed

Session Classification: Automation and reproducibility of analysis workflows in particle physics

Contribution ID: **11** Type: **not specified**

Grid on Exascale Computers: GPU/CPU cross platform performance portability in Lattice QCD

Monday 15 September 2025 14:00 (30 minutes)

Presenter: BOYLE, Peter

Session Classification: Accelerators (compute, not particle) and performance portability of particle physics software

Contribution ID: **12** Type: **not specified**

Alpaka: Performance Portability

Monday 15 September 2025 14:30 (30 minutes)

Presenter: CROSS, Ryan (University of Warwick (GB))

Session Classification: Accelerators (compute, not particle) and performance portability of particle physics software

Contribution ID: **13** Type: **not specified**

Panel Q&A

Monday 15 September 2025 15:00 (10 minutes)

Presenters: BOYLE, Peter; CROSS, Ryan (University of Warwick (GB))

Session Classification: Accelerators (compute, not particle) and performance portability of particle physics software

Contribution ID: **14** Type: **not specified**

25 years of particle physics computation

Monday 15 September 2025 15:50 (30 minutes)

Presenter: JENSEN, Jens (UKRI STFC)

Session Classification: Software maintainability, code quality, and testing of particle physics software

Contribution ID: **15** Type: **not specified**

Better software for Particle Physics

Monday 15 September 2025 16:20 (30 minutes)

Presenter: CHRISTIDI, Ilektra (UCL ARC)

Session Classification: Software maintainability, code quality, and testing of particle physics software

Contribution ID: **16** Type: **not specified**

Panel Q&A

Monday 15 September 2025 16:50 (10 minutes)

Presenters: CHRISTIDI, Ilektra (UCL ARC); JENSEN, Jens (UKRI STFC)

Session Classification: Software maintainability, code quality, and testing of particle physics software

Contribution ID: **17** Type: **not specified**

Applications of quantum computation for lattice gauge theories and high energy physics

Tuesday 16 September 2025 09:00 (30 minutes)

Presenter: CHAKRABORTY, Bipasha (University of Southampton)

Session Classification: Applications of quantum computing for particle physics research

Contribution ID: **18** Type: **not specified**

Quantinuum Systems and their benefits for Lattice Gauge Theories

Tuesday 16 September 2025 09:30 (30 minutes)

Presenter: RINALDI, Enrico (Quantinuum K. K.)

Session Classification: Applications of quantum computing for particle physics research

Contribution ID: **19** Type: **not specified**

Beyond Qubits: Exploring Diverse Quantum Architectures for Neutrino Scattering Simulations

Tuesday 16 September 2025 10:00 (30 minutes)

Presenter: GODWOOD, Sam (University of Liverpool)

Session Classification: Applications of quantum computing for particle physics research

Contribution ID: **20** Type: **not specified**

Panel Q&A

Tuesday 16 September 2025 10:30 (10 minutes)

Presenters: CHAKRABORTY, Bipasha (University of Southampton); RINALDI, Enrico (Quantinuum K. K.); GODWOOD, Sam (University of Liverpool)

Session Classification: Applications of quantum computing for particle physics research

Contribution ID: **21** Type: **not specified**

Enabling AI for High Energy Physics: overview and experiment cases

Tuesday 16 September 2025 11:20 (30 minutes)

Presenter: D'ONOFRIO, Monica (University of Liverpool (GB))

Session Classification: Applications of machine learning technologies in particle physics software

Contribution ID: **22** Type: **not specified**

Lattices to learn

Tuesday 16 September 2025 11:50 (30 minutes)

Presenter: PARK, Chanju (Swansea University)

Session Classification: Applications of machine learning technologies in particle physics software

Contribution ID: **23** Type: **not specified**

Panel Q&A

Tuesday 16 September 2025 12:20 (10 minutes)

Presenters: PARK, Chanju (Swansea University); D'ONOFRIO, Monica (University of Liverpool (GB))

Session Classification: Applications of machine learning technologies in particle physics software

Contribution ID: **24** Type: **not specified**

Close

Tuesday 16 September 2025 12:30 (10 minutes)

Presenter: BENNETT, Ed

Session Classification: Applications of machine learning technologies in particle physics software