Session Program
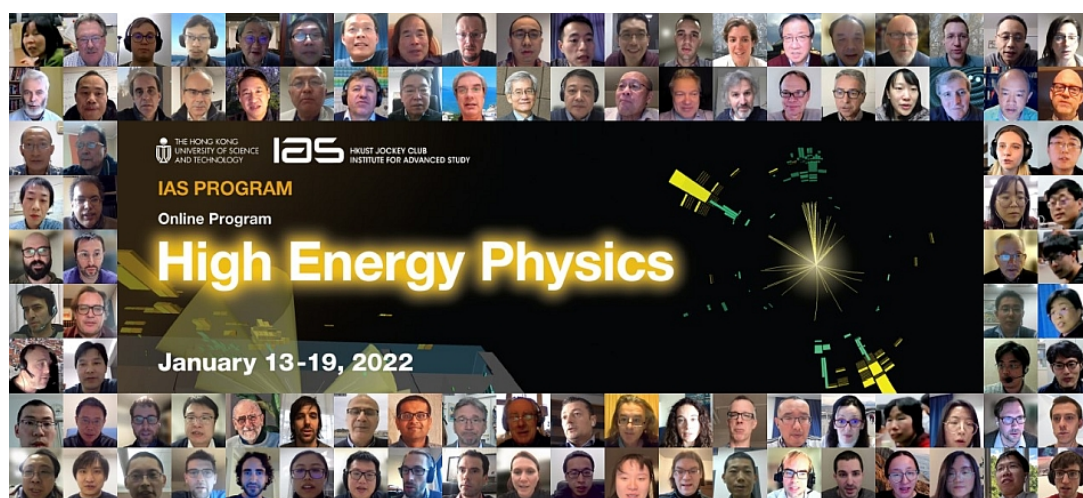
13–19 Jan 2022

IAS Program on High Energy Physics (HEP 2022)

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing

Online via Zoom
(Details will be available in due course)

Thursday 13 January

15:00

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 1 - Session 1 (MW-ED-D1-S1) / Theme: Innovative Ideas in HEP Detectors
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Franco BEDESCHI, Joao GUIMARAES DA COSTA

15:00–15:05 **Opening Remarks**

Speaker
Joao GUIMARAES DA COSTA

15:05–15:50 **Blue Sky Research**

Speaker
Peter KRIZAN

15:50–16:30 **Highlights on Silicon Sensor Developments**

Speaker
Philip ALLPORT

16:30–16:40 **Break**

16:40

16:40

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 1 - Session 2 (MW-ED-D1-S2) / Theme: Innovative Ideas in HEP Detectors
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Joao GUIMARAES DA COSTA, Franco BEDESCHI

16:40–17:20
Next Generation Vertex Detectors Based on Bent CMOS Sensors Wafers

Speaker
Magnus MAGER

17:20–18:00 **Semiconductor Detectors for 4D Tracking**

Speaker
Gregor KRAMBERGER

18:00–19:50 **Long Break**

19:50

19:50

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 1 - Session 3: (MW-ED-D1-S3) / Theme: Innovative Ideas in HEP Detectors
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Joao GUIMARAES DA COSTA, Franco BEDESCHI

19:50–20:30 **Pixelated Time Projection Chamber Tracker Detector Technology**

Speaker
Peter KLUIT

20:30–21:10 **Precision Timing in Calorimetry**

Speaker
Imad LAKTINEH

21:10–21:50   **Digital SiPM and DR Calorimetry**

Speaker
Romualdo SANTORO

22:00

21:50–22:00   **Break**

22:00

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 1 - Session 4: (MW-ED-D1-S4) / Theme: Innovative Ideas in HEP Detectors
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:**
Joao GUIMARAES DA COSTA, Franco BEDESCHI

22:00–22:40   **Scintillating Glass Hadronic Calorimeter**

Speaker
Yong LIU

22:40–23:20   **Fast Readout Electronics**

Speaker
Angelo RIVETTI

23:20

Friday 14 January

15:00

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 2 - Session 1 (MW-ED-D2-S1) / Theme: Innovative Ideas in HEP Computing
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Paolo GIACOMELLI, Weidong LI

15:00–15:45

Opticks : Innovation in Optical Photon Simulation via State-of-the-art GPU Ray Tracing from NVIDIA® OptiX™

Speaker
Simon BLYTH

15:45–16:30 **Key4HEP: Common Software for Future Experiments**

Speaker
Benedikt HEGNER

16:30–16:40 **Break**

16:40

16:40

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 2 - Session 2 (MW-ED-D2-S2) / Theme: Innovative Ideas in HEP Computing
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Weidong LI, Paolo GIACOMELLI

16:40–17:25 **Tracking with A Common Tracking Software (ACTS)**

Speaker
Xiaocong AI

17:25–18:05 **The CERN Quantum Technology Initiative**

Speaker
Sofia VALLECORSA

18:05–19:55 **Long Break**

19:55

19:55

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 2 - Session 3 (MW-ED-D2-S3) / Theme: Innovative Ideas in HEP Computing
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Weidong LI, Paolo GIACOMELLI

19:55–20:25

Application of Quantum Machine Learning to High Energy Physics Data Analysis

Speaker
Chen ZHOU

20:25–20:55 **Application of Quantum Machine Learning on PID at BESIII**

Speaker
Teng LI

20:55–21:40 **Cluster Counting**

Speaker
Francesco GRANCAGNOLO

21:40–21:50 **Break**

21:50

21:50

Mini-workshop: Experiment/Detector - Innovation in HEP Detectors and Computing: Day 2 - Session 4 (MW-ED-D2-S4) / Theme: Innovative Ideas in HEP Computing
Session | **Location:** Online via Zoom, (Details will be available in due course) | **Conveners:** Paolo GIACOMELLI, Weidong LI

21:50–22:30

Application of AI Techniques to Data Analysis and Physical Interpretation of the Data

Speaker
Tilman PLEHN

22:30–23:10

Application of Machine Learning to Event Reconstruction and Analysis

Speaker
Benjamin NACHMAN

23:10