

Session Program

20-24 Apr 2026

Quantum Observables for Collider Physics 2026

Session 2

CERN, 4/3-006 - TH Conference Room

Tuesday 21 April

09:00

Session 2: LHC Physics - Higgs and VV

Session | **Location:** CERN, 4/3-006 - TH Conference Room | **Conveners:** James William Howarth, dorival Gonçalves

09:00–09:25

Higher-order corrections in Higgs decays

Speaker

Alberto Navarro

09:25–09:50

Two qutrits at the LHC: a higher-order perspective

Speaker

Giovanni Pelliccioli

09:50–10:15

Measurements of Z-boson pair entanglement in decays of Higgs bosons at the ATLAS experiment

Speaker

Tairan Xu

10:15–10:40

Mapping the Quantum State of Higgs→ZZ

Speaker

Jeffrey Davis

10:40

11:10

Session 2: LHC Physics - Top

Session | **Location:** CERN, 4/3-006 - TH Conference Room | **Conveners:** Giulia Negro, Eleanor Jones

11:10–11:35

Spin density matrix and quantum observables of a two-qubit system at colliders

Speaker

Dong Woo Kang

11:35–12:00

Measurements of entanglement and characterization of the $t\bar{t}$ quantum state with the CMS experiment [20'+5']

Speaker

Otto Heinz Hindrichs

12:00–12:25

Measurement of Quantum information observables in top-quark pairs using the ATLAS detector [20'+5']

Speaker

Fiona Ann Jolly

12:25