

Session Program

12-15 Apr 2021

IoP 2021 - Joint APP/HEPP/NP Conference

Parallel Stream 5

Edinburgh, Remote

Monday 12 April

13:30

Parallel Stream 5: Higgs Physics I

Session | **Location:** Edinburgh, Remote | **Convener:** Elliot Reynolds

13:30–13:45

Measurement of the Higgs boson mass decaying to a pair of Z bosons in the four lepton channel using pp collision events collected by the ATLAS detector at CERN

Speaker

Kamal Saoucha

13:45–14:00

The ttH(bb) leptonic analysis at ATLAS

Speaker

Callum Booth

14:00–14:15

A Search with the ATLAS Detector for the Standard Model Higgs Boson Produced In Association with a Top Quark Pair and Decaying to a Bottom Quark Pair (ttH(bb))

Speaker

Mr Dave Thomas

14:15–14:30

Constraining the Higgs-top Yukawa Coupling with the ATLAS Experiment at the LHC

Speaker

Thomas Michael Carter

14:30–14:45

Adversarial Neural Networks for ttH(yy)

Speaker

Emily Petrova Takeva

14:45–15:00

Search for the Higgs boson decaying to two electrons using the full Run 2 data set collected by the CMS detector at the LHC

Speaker

Joe Davies

15:00

Tuesday 13 April

14:45

Parallel Stream 5: Higgs Physics II

Session | **Location:** Edinburgh, Remote | **Convener:** Panagiotis Bellos

14:45–15:00

Development of a Z+jets dedicated treatment within the scope of the search for the decay of the Higgs Boson to charm quarks with the ATLAS experiment

Speaker

Antonio Manuel Mendes Jacques Da Costa

15:00–15:15

Axion searches in rare Higgs decays at ATLAS

Speaker

Adam James Ruby

15:15–15:30

A search for invisibly decaying Higgs Bosons in the fully hadronic final state, targeting the ttH and VH production modes

Speaker

Mr David Benjamin Anthony

15:30–15:45

Searches for Higgs boson pair production in the bb $\tau\tau$ final state with 139 fb⁻¹ of pp collision data with the ATLAS detector

Speaker

Zhiyuan Li

15:45–16:00

Optimizing the search for pair-production of Higgs Bosons in the bbbb final state using data collected from proton-proton collisions in the ATLAS detector.

Speaker

Lucas Santiago Borgna

16:00–16:15

Combining di-Higgs decay channels to measure a combined limit on the di-Higgs cross section with the ATLAS detector

Speaker

Natasha Hehir

16:15

Thursday 15 April

11:30

Parallel Stream 5: Medical Nuclear Physics

Session | **Location:** Edinburgh, Remote | **Convener:** Laura Harkness

11:30–11:45

Design of an Imaging Collimator for application in low dose Molecular Breast Imaging

Speaker

Hannah Brown

11:45–12:00

Cross-section measurements for the production of theragnostic terbium isotopes at the Birmingham cyclotron facility

Speaker

Rebeckah Trinder

12:00–12:15

Prompt gamma-ray measurements with nanoparticles for in vivo range verification and dose enhancement in protontherapy

Speaker

Escribano-Rodriguez Sonia

12:15–12:30

Improving Gamma-Ray Position Resolution in Pixelated CZT Detectors for use in Molecular Breast Imaging Applications

Speaker

Ellis Rintoul

12:30