

Session Program

3-5 Dec 2025

The 22nd Workshop of the LHC Higgs Working Group

WG3 parallel session

CERN, 503/1-001 - Council Chamber

Thursday 4 December

09:00

WG3 parallel session: WG3 parallel session

Session | **Location:** CERN, 40/R-D10 | **Convener:** Rui Santos

09:00–09:15

Using machine learning to predict large pseudoscalar H125 couplings to fermions (12'+3')

Speaker

Rafael Boto

09:15–09:30

A smoking gun signature of 3HDM (12'+3') [remote]

Speaker

Atri Dey

09:30–09:45

LHC Signatures of a Vector-Like Top Partner and Charged Higgs Boson in the 2HDM-II (12'+3')

Speaker

Mohammed Boukidi

09:45–10:00

Search for an invisible scalar in $t\bar{t}$ final states at the LHC (12'+3')

Speaker

Rodrigo Capucha

10:00–10:15

Distinguishing $A \rightarrow HZ$ and $H \rightarrow AZ$ with top-quark spin correlations (12'+3')

Speaker

Francisco Arco

10:15–10:30

Charged Higgs Pairs at the LHC: A NLO Analysis (12'+3')

Speaker

Michael Spira

10:30

11:00

WG3 parallel session

Session | **Location:** CERN, 40/R-D10 | **Convener:** Rui Santos

11:00–11:15

LHC Constraints on Vector-like Quarks within the Two-Higgs-Doublet Model Framework (12'+3') [remote]

Speaker

Khawla Salime

11:15–11:30

Strong First-Order Phase Transitions and Exotic Intermediate Phases in the CP-Conserving 2HDM (12'+3')

Speaker

Christoph Borschensky

11:30–11:45

Electroweak Baryogenesis with BARYONET: Theory and Applications (12'+3')**Speaker**

Giulio Barni

11:45–12:00

V-associated production & vector boson fusion of Higgs bosons as an LHC signature of CP violation (12'+3')**Speaker**

Alvaro Lozano Onrubia

12:00–12:15

Probing Strong First-Order Electroweak Phase Transition scenarios in 2HDM with FCC-ee/CEPC (12'+3')**Speaker**

Anisha .

12:30