

# Higgs/Top Performance meeting

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22 April, 2024

## Feasibility Study Report

- First draft to be ready by the end of the year (for the SPC)
  - Draft v0 for internal PED review by end of September!

## Procedure for conferences

In general, contact us (conveners) in case you would like to present material at a conference

- All abstracts have to be approved by the Higgs/Top conveners and then conference committee
- After approval, the author is responsible for abstract submission to the conference
- Abstracts should be registered in the conf. database: <https://fcc-ee-conference.web.cern.ch/>

## **Joint Higgs+QCD FCC meeting, May 22nd**

- Color singlet clustering, Dalitz contribution, Flavor tagging
- <https://indico.cern.ch/event/1409233/>

## **FCC Week 2024, 10-14 June, San Francisco**

- <https://indico.cern.ch/event/1298458>
- General Higgs overview talk, Higgs couplings and Higgs/Top properties

## **ICHEP, 18-24 July, Prague**

- <https://indico.cern.ch/event/1291157/>
  - Talk “Higgs physics opportunities at the FCC” (Giovanni Marchiori)
  - Poster on Higgs mass/ZH cross-section of 240+365 GeV (Gregorio B, Ang. L, Kevin D, Jan E.)

## **ECFA workshop on EWK factories, 9-11 October, Paris**

- <https://indico.cern.ch/event/1399276/>

**Produced large batch of samples at 365 GeV for Top/Higgs studies – thanks Louis Portales!**

Samples (will) appear here: [https://fcc-physics-events.web.cern.ch/fcc-physics-events/FCCEe/winter2023/Delphesevents\\_IDEA.php](https://fcc-physics-events.web.cern.ch/fcc-physics-events/FCCEe/winter2023/Delphesevents_IDEA.php)

- **Higgs samples**
  - All samples produced  $Z(XX)H(YY)$  with Whizard @365
  - FCNC samples at 240/365 still being debugged?
- **Top samples**
  - WbWb split in hadronic, semileptonic, and leptonic (Whizard)
  - Center-of-mass energies 345, 350, 355 and 365 GeV
- **Background samples**
  - WW/ZZ Pythia
  - Z/ $\gamma$  with Whizard
  - Rares

**Let us know if you need additional samples**

# Agenda for today



**14:00** → 14:20 **News**

**Speakers:** Jan Eysermans (Massachusetts Inst. of Technology (US)), Michele Selvaggi (CERN)

🕒 20m 

**14:20** → 14:40 **H- $\rightarrow$  mu mu**

**Speakers:** Andrew Mehta (University of Liverpool (GB)), Mr Stephen Randles (Uni Liverpool)

🕒 20m 

**14:40** → 15:00 **Higgs width and the ZH- $\rightarrow$ ZZZ- $\rightarrow$ 6j final state**

**Speaker:** Aman Desai (University of Adelaide (AU))

🕒 20m 

**15:00** → 15:20 **ZH cross-section measurement at 240 and 365 GeV**

**Speaker:** Kevin Dewyspelaere (Centre National de la Recherche Scientifique (FR))

🕒 20m 

**15:20** → 15:40 **Summary ECFA Top threshold meeting**

**Speaker:** Marcel Vos (IFIC Valencia (ES))

🕒 20m 