

News & Introduction

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LHCtopWG 26th meeting



November 11, 2024









Welcome!

- ❖ Welcome to the second open session of 2024
 - As the first one, in hybrid mode (in person AND zoom)
 - https://indico.cern.ch/event/1444046

Starts 11 Nov 2024, 14:00 Ends 13 Nov 2024, 20:00

-irope/Zurich

- ❖ Today's session will take place in building 28
 - Tuesday and Wednesday in building 40 (Salle Bohr)



We will use 2 different rooms for this meeting: Monday (11/11) afternoon 14:00 - 18:00: 28/S-029 Tuesday (12/11) morning 9:00 - 13:00: Salle Bohr 40/ S2-B01

Tuesday afternoon: 14:00 - 18:00: Salle Bohr 40/S2-B01

Wednesday (13/11) morning: 9:00 -13:00: Salle Bohr 40/S2-B01

Go to map

The LHCtopWG and its mission (I)

- Provide a forum for discussions between the theory and experimental community at the LHC
 - Present new theory results with time for questions and discussions
 - Open meetings twice a year and on-demand specific seminars
- Provide combinations of LHC top-quark physics results (mainly by ATLAS and CMS, potentially by LHCb)
 - Reach highest precision and provide a unified experimental answer to the theory community
 - Compare results in a coherent way and understand possible differences
 - → Requires **detailed understanding** of analysis methodology, theoretical models used, categories of systematic uncertainties and correlations

The LHCtopWG and its mission (II)

- Provide summary plots of experimental results in comparison to theory predictions
- Provide recommendations and guidelines
 - > Reference cross sections as a common basis for measurements
 - Harmonize prescriptions to facilitate comparisons and combinations
- Experimental details are discussed in Closed meetings attended by conveners, subgroup conveners, contacts and invited experts on specific topics

Documentation

- ❖ Provide a forum for discussions between the theory and exp. community at the LHC
 - Open meetings twice a year and on-demand specific seminars
- LHCtopWG contacts (lhc-toplhcwg-admin@cern.ch)
 - Fabio Maltoni (Theory), Enrique Palencia (CMS), Katharina Müller (LHCb), Wolfgang Wagner (ATLAS)
- Agendas available at https://indico.cern.ch/categoryDisplay.py?categld=4463
- Public summary plots at https://twiki.cern.ch/twiki/bin/view/LHCPhysics/LHCTopWGSummaryPlots
- Public Twiki page at https://twiki.cern.ch/twiki/bin/view/LHCPhysics/LHCTopWG
- Main open mailing list: lhc-toplhcwg@cern.ch

Contacts for ongoing work

- ❖ Δφ (ℓ⁺, ℓ⁻) spin correlation: Miriam Watson & James Howarth (ATLAS); Giulia Negro, Andreas Jung & Afiq Anuar (CMS)
- EFT: Abhishek Sharma & Tom Stevenson (ATLAS); Sergio Sánchez Cruz, Kirill Skovpen & Jon Wilson (CMS)
- Common MC: Dominic Hirschbühl & Reinhard Schwienhorst (ATLAS); Giulia Negro, Andris Potrebko & Markus Seidel (CMS)
- Harmonization of modelling uncertainties: Federica Fabbri & Katharina Voss (ATLAS); Efe Yazgan, Jan van der Linden & Carlos Vico (CMS)
- ❖ Global EFT effort within the LHC EFT WG (https://lpcc.web.cern.ch/lhc-eft-wg): Carmen Diez (ATLAS), Robert Schoefbeck (CMS), Ken Mimasu (Theory)
- Also contacts for dedicated topics as needed (JES, b-tagging, generators, pseudo-top definitions, etc).

Summary plots

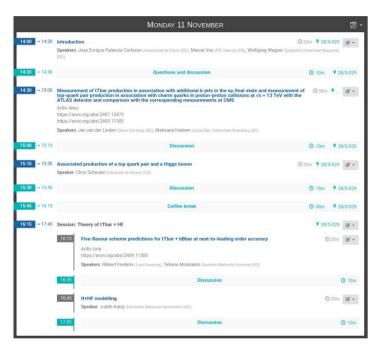
Decided not to have new summary plots for this meeting

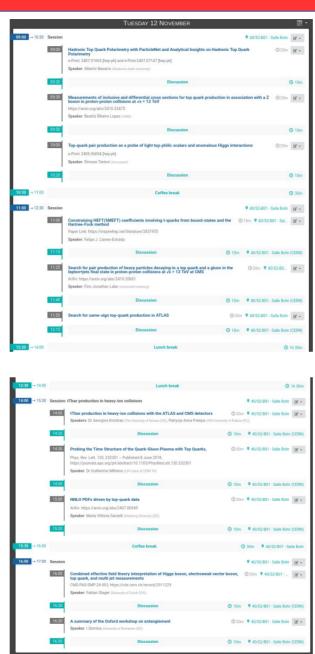
❖ Agreed to have a new round of plots for the next open meeting (Spring 2025)

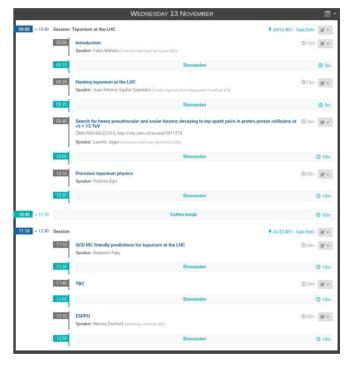
Future of LHCtopWG Open Meetings

- ❖ So far, we have been having two in-person/hybrid open meetings per year
 - April/May and November typically
- ❖ We believe this is ok but we would like to know if people is happy with this and/or if changes would be appreciated
 - Twice a year is too much?
 - November meeting too close to Top conference?
 - Both meetings hybrid (in-person)? One each?
 - Any other thing?
- Please share your thoughts with us (lhc-toplhcwg-admin@cern.ch)









LHCtopWG dinner

- ❖ As usual, we plan to have dinner together tomorrow (Tuesday) at around 19.00-19.30
- Place to be decided yet, most likely not far from CERN
- ❖ If interested, add your name here before tomorrow noon (but the sooner the better)

Transition of ATLAS LHCtopWG conveners

- Wolfgang Wagner has been the ATLAS LHCtopWG contact since March 2021
 - > ... but is now stepping down





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- Marcel Vos has kindly agreed to replace him!
 - Welcome!!!