



Workshop Introduction

Group Conveners
LHC EW General Meeting, 10.07.24



The General Meeting

- First General Meeting since November 2022!
- The goal (1): bring together our community (in person if possible!), including working groups, conveners, & analyzers, together with the theory community and experts from experiments
- The goal (2): support & promote the interactions between the different communities and groups of the EW field, show the state of the art of activities of experiments / theory and outline the (near) future directions and plans of WGs
- See where we are with the common prescriptions and MC predictions, tools for analyses, documentation of the sub-groups activities (yellow reports?) and future developments

This General Meeting Goals

More specific goals of this General Meeting:

- Revitalise the effort and interest in the LHC EW activities
- Clarify and re-focus the scope of the Working Group activities to legacy measurements with Run-2 data and (especially) future Run-3 measurements
 - Some activities, e.g. Yellow Reports, have been continuing for long time. It is time to re-evaluate their scope and conclude those efforts
 - Focus on providing agreed sets of recommendations for future measurements rather than attempting long and ambitious reviews
- Discuss theoretical uncertainties that affect (precision) measurements
 - Theoretical uncertainties are among limiting factors in several (precision) measurements, and different collaborations try to constrain them in different ways in different papers
 - Very interesting Workshop was held on 26-27 February:
<https://indico.cern.ch/event/1368033/> and TWiki page with ongoing follow-up activities: <https://twiki.cern.ch/twiki/bin/view/LHCPhysics/THuncertainties>

The LHC EW WG: structure of the group

Conveners: Stefan Dittmaier, Alessandro Vicini, Doreen Wackerroth (Theory) Alessandro Tricoli, Oldrich Kepka (ATLAS), Vieri Candelise, Guillermo Gomez-Ceballos (CMS), William Barter, Mika Vesterinen (LHCb), James Mulligan, Nima Zardoshti (ALICE)

WG1: Drell-Yan physics and EW precision measurements

Conveners: Daniel Froidevaux, Aram Apyan (ATLAS), Simone Amoroso, David d'Enterria (CMS), Mika Vesterinen (LHCb) Fulvio Piccinini (TH)

WG2: Jets and EW bosons subgroup

Conveners: Eram Rizvi, Mario Campanelli (ATLAS), Deniz Sunar Cerci (CMS), Will Barter (LHCb) Marek Schoenherr (TH)

WG3: EW multi-boson production

Conveners: Shu Li, Philippe Calafayan(ATLAS), Yacine Haddad, Lorenzo Viliani (CMS), Jonas Lindert and Celine (TH)

The LHC EW WG: structure of the group

Conveners:
Kepka (ATL)
James Mul

Working group conveners have an important role to facilitate the progress towards the long-term objectives of the group

i, Oldrich
rinen (LHCb),

WG1: Drell-

Conveners:
Vesterinen

Feel invited to discuss with the conveners during or after the workshop to implement your suggestions and ideas

MS), Mika

WG2: Jets

Conveners:
Schoenher

Thanks to the WG1, WG2, WG3 conveners for organizing their sessions!

LHCb) Marek

WG3: EW n

Conveners:
Celine (TH)

s Lindert and

The General Meeting: organization & format

- Two full days (Wednesday + Thursday) and one morning (Friday)
- First day dedicated to vision and perspectives from invited theory experts on the EW sector, then WG2 session in the morning. Afternoon dedicated on common topics (DY, precision and V+jets)
- Thursday and Friday WG1 and WG3 sessions + final discussion
- **Dedicated session on PDF groups report on Thursday 14-18.30**
- **Welcome Reception** (drinks and aperitives) - Mezzanine area just outside the Main Auditorium (main building) today at 19.00!
- **Workshop dinner** on Thursday (see next slide)

Workshop Dinner

We will have our workshop dinner at the Lebanese restaurant

LES SAVEURS DU LIBAN

located in Place de la Navigation 8, 1201 Genève (Paquis neighborhood, 5 mins from Geneva Cornavin train station) at 8 pm.

<https://www.lessaveursduliban.ch/fr/restaurants/les-saveurs-du-liban/>

If you did not sign-up during registration, there is still a chance to sign-up on a paper sheet today.
See you all there!



The Agenda & Coordinates

Agenda:

<https://indico.cern.ch/event/1400204/timetable/>

Zoom:

<https://cern.zoom.us/j/65234199360?pwd=Z09FNnpEdmwvcTgzMjBkK2M1ZVp4dz09>

Please use microphones, significant remote attendance

Enjoy the LHC EW WG
Workshop!

Opening Session - Today

WEDNESDAY, 10 JULY

10:00	→ 13:00	Session: Opening session	40/S2-C01 - Salle Curie
Conveners: Alessandro Tricoli (Brookhaven National Laboratory (US)), Alessandro Vicini (Università degli Studi e INFN Milano (IT)), Doreen Wackerroth (SUNY Buffalo), Guillermo Gomez Ceballos Retuerto (Massachusetts Inst. of Technology (US)), Mika Vesterinen (University of Manchester), Oldrich Kepka (Czech Academy of Sciences (CZ)), Stefan Dittmaier (Albert Ludwigs Universitaet Freiburg (DE)), Stefan Dittmaier (MPI fuer Physik), Vieri Candelise (Universita e INFN Trieste (IT)), William Barter (University of Edinburgh)			
10:00		Welcome on behalf of LHC Physics Center	10m
Speaker: Michelangelo Mangano (CERN)			
10:10		Workshop introduction	10m
10:20		Monte-Carlo developments and Electroweak/mixed QCD-EW corrections	40m
Speaker: Marco Zaro (Università degli Studi e INFN Milano (IT))			
11:00		qT resummation report	35m
Speaker: Luca Rottoli (University of Zurich (CH))			
11:35		General PDF status and prospects	40m
Speaker: Amanda Sarkar (University of Oxford (GB))			
12:15		SM measurements in the next decade	40m
Speakers: FRANK KRAUSS, Frank Krauss			
13:00	→ 14:00	Lunch	40/S2-C01 - Salle Curie
14:00	→ 14:40	Session: Opening Session II (Experimental)	40/S2-C01 - Salle Curie
14:00		Experimental perspective of the future SM LHC program	35m
Speaker: Ulla Blumenschein (University of London (GB))			