

## **Session Program**

**4-8 May 2026**



# **33rd International Workshop on Deep Inelastic Scattering and Related Subjects (DIS2026)**

## ***WG3 Electro-weak physics/higgs/top and BSM***

Hotel Carlton  
via Milazzo 6, Bologna, Italy

# Tuesday 5 May

09:00

## WG3 Electro-weak physics/higgs/top and BSM: Top Physics 1

Session | Location: Hotel Carlton, Sala SATURNO B, First Floor | Conveners: Menglin Xu, Ken Mimasu

09:00-09:20

**Highlights on top quark properties and mass measurements with the ATLAS detector (17'+3')**

**Speaker**

Alberto Prades

09:20-09:40

**Measurements of top quark production and its properties (17'+3')**

**Speaker**

Javier Cuevas

09:40-10:00

**Spin Correlations in  $t\bar{t}$  Production and Decay at the LHC in QCD Perturbation Theory (17'+3')**

**Speaker**

Emanuele Re

10:00-10:20

**$t\bar{t}$  cross section, including threshold and off-shell measurements (17'+3')**

**Speaker**

Nello Bruscinò

10:45

11:00

## WG3 Electro-weak physics/higgs/top and BSM: Top Physics 2

Session | Location: Hotel Carlton, Sala SATURNO B, First Floor | Conveners: Ken Mimasu, Menglin Xu

11:00-11:20

**Measurements of top quark associated production and rare processes (17'+3')**

**Speaker**

Victor Rodriguez Lorenzo

11:20-11:40

**Overview of EFT-based searches involving top quarks at ATLAS (17'+3')**

**Speaker**

Barbora Eckerova

11:40-12:00

**Two-loop amplitude for the associated production of a top-anti-top pair and a W boson at hadron colliders (17'+3')**

**Speaker**

Mattia Pozzoli

12:00-12:20

**Multi-scale improved predictions for  $pp \rightarrow t\bar{t}W^+(j)$  (17'+3')**

**Speaker**  
Nikolaos Dimitrakopoulos

12:20-12:28

**Modeling top-quark decays in  $t\bar{t}$  production at the LHC (8')**

**Speaker**  
Manal Alsairafi

12:28-12:36

**Complete NLO corrections to full off-shell  $t\bar{t}$  production in the  $\ell\ell+j$  decay channel (8')**

**Speaker**  
Leon Mans

13:00

14:30

**WG3 Electro-weak physics/higgs/top and BSM: Multiboson**

**Session** | **Location:** Hotel Carlton, Sala SATURNO B, First Floor | **Conveners:** Ken Mimasu, Menglin Xu

14:30-14:50

**Recent developments in vector boson polarization modelling in Sherpa (17'+3')**

**Speaker**  
Mareen Hoppe

14:50-15:10

**Multiboson measurements with the ATLAS detector (17'+3')**

**Speaker**  
Alain Bellerive

15:10-15:35

**Multiboson production and vector boson scattering in CMS (20'+5')**

**Speaker**  
Tianyu Mu

15:35-15:55

**Planar three-loop four-point master integrals with two off-shell legs (17'+3')**

**Speaker**  
Dhimiter Canko

15:55-16:15

**Charting the spin structure of WZ pairs at the LHC (17'+3')**

**Speaker**  
Giovanni Pelliccioli

16:15

16:45

**WG3 Electro-weak physics/higgs/top and BSM: Flavor physics**

**Session** | **Location:** Hotel Carlton, Sala SATURNO B, First Floor | **Conveners:** Menglin Xu, Ken Mimasu

16:45-17:05

**Perturbative QCD Prediction of the Hyperon EDM from CP-violating Dipole Interactions (17'+3')**

**Speaker**  
Xuanbo Tong

17:05-17:30

**New physics searches in beam dump at NA62 (22'+3')**

**Speaker**  
Daniel Grewe

17:30-17:55

**New measurement of  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$  branching ratio at the NA62 experiment (22'+3')****Speaker**

Tommaso Spadaro

17:55-18:15

**Latest Results from the SND@LHC Experiment (17'+3')****Speaker**

Cemal Dinç

18:15-18:35

**Charged-current semileptonic b-hadron decays at LHCb: precision tests with heavy-flavour QCD inputs (17'+3')****Speaker**

Sofia Zalambani

18:35-18:43

**Simultaneous determination of the CKM angle  $\gamma$  and parameters related to mixing and CP violation in the charm sector at LHCb (8')****Speaker**

Alessandro Bertolin

19:10

## Wednesday 6 May

09:00

### WG3 Electro-weak physics/higgs/top and BSM: Precision Measurements

Session | Location: Hotel Carlton, Sala SATURNO B, First Floor | Conveners: Menglin Xu, Ken Mimasu

09:00–09:20

#### Z-plus-jet Production with JETHAD-DYnamis: Angular Structure, Polarization, and Fixed-Order Matching (17'+3')

**Speaker**

Dr Francesco Giovanni Celiberto

09:20–09:40

#### Electroweak corrections and theoretical uncertainties in the weak mixing angle determination at the LHC and HL-LHC (17'+3')

**Speaker**

Mauro Chiesa

09:40–10:00

#### Improved extraction of the weak mixing angle from recent CMS forward-backward asymmetry measurements at 13 TeV with additional PDF constraints from W and Z measurements (17'+3')

**Speaker**

Dr Hyon-San Seo

10:00–10:20

#### Towards two-loop EW corrections to the Drell-Yan process (17'+3')

**Speaker**

Simone Devoto

10:20–10:28

#### $\gamma Z$ Box at Low Energy (8')

**Speaker**

Balma Duch

10:45

11:15

### WG3 Electro-weak physics/higgs/top and BSM: Higgs Physics

Session | Location: Hotel Carlton, Sala SATURNO B, First Floor | Conveners: Supriya Sinha, René Poncelet

11:15–11:35

#### LHCb Run 3 low-mass Drell-Yan and EW measurements (22'+3')

**Speaker**

Alisha Lightbody

11:35–11:55

#### Parton-shower and fixed-order QCD effects in Higgs boson production in weak-boson fusion and its decays to bottom quarks (17'+3')

**Speaker**

Arnd Behring

11:55–12:15

#### Higgs coupling and properties at CMS (17'+3')

**Speaker**

Océane Poncet

12:15-12:35 **Electroweak corrections to Higgs+jet production (17'+3')**

**Speaker**

Haitao Li

12:35-12:45

**Data-driven estimation of fake  $\tau$ -lepton background in the  $H_{\pm} \rightarrow \tau\nu$  search with ATLAS Run-II data. (8')**

**Speaker**

Monika Juzek

13:00

14:30

### WG3 Electro-weak physics/higgs/top and BSM: Higgs Physics & BSM

**Session** | **Location:** Hotel Carlton, Sala SATURNO B, First Floor | **Conveners:** Supriya Sinha, René Poncelet

14:30-14:50

**Search for rare decay of SM Higgs to light scalars in the CMS experiment (17'+3')**

**Speaker**

Fengwangdong Zhang

14:50-15:10

**ATLAS Searches for new scalars & BSM Higgs decays (17'+3')**

**Speaker**

Monica Verducci

15:10-15:30

**Di-Higgs Production via gluon fusion in HEFT and SMEFT (17'+3')**

**Speaker**

Konstantin Schmid

15:30-15:50

**Results on photon-photon scattering processes in ultra-peripheral Pb+Pb collisions with ATLAS (17+3')**

**Speaker**

Lydia Beresford

16:15

16:45

### WG3 Electro-weak physics/higgs/top and BSM: BSM Physics

**Session** | **Location:** Hotel Carlton, Sala SATURNO B, First Floor | **Conveners:** Supriya Sinha, René Poncelet

16:45-17:10

**Searches for heavy and vector-like fermions, and leptoquarks with the ATLAS and CMS experiments (22'+3')**

**Speaker**

Carlo Di Fraia

17:10-17:30

**Dark sector searches at LHCb (17'+3')**

**Speaker**

Andrii Usachov

17:30-17:55

**Searches for Long-lived Particles, Exotic Heavy Resonances and Dark Matter with the ATLAS detector (22'+3')**

**Speaker**

James Smith

17:55-18:20

**Searches for Supersymmetry at the ATLAS and CMS experiments (22'+3')**

**Speaker**

Yuchen Cai

18:50

## Thursday 7 May

09:00

### WG3 Electro-weak physics/higgs/top and BSM: EFT

**Session** | **Location:** Hotel Carlton, Sala SATURNO B, First Floor | **Conveners:** René Poncelet, Supriya Sinha

09:20–09:40 **EFT measurements in ATLAS (17'+3')**

**Speaker**

Lydia Brenner

09:40–10:00 **Global fits at future colliders with the SMEFIT framework (17'+3')**

**Speaker**

Marion Thomas

10:00–10:08 **Fit of Four-Fermion Operators through Drell-Yan data (8')**

**Speaker**

Martina Fusi

10:08–10:16 **PDF and BSM interplay in the top and Drell-Yan sector (8')**

**Speaker**

Ella Cole

10:30

11:00

### WG3 Electro-weak physics/higgs/top and BSM: LLPs & Future Colliders

**Session** | **Location:** Hotel Carlton, Sala SATURNO B, First Floor | **Conveners:** Supriya Sinha, René Poncelet

11:00–11:20

**Perspectives for studies of the HET physics at the muon-hadron collider at CERN (17'+3')**

**Speaker**

Dr Hamzeh Khanpour

11:20–11:40

**Probing light-quark dipole operators with nucleon energy correlators (17'+3')**

**Speaker**

Yingsheng Huang

11:40–12:00

**The SHiP/NA67 experiment at the ECN3 high-intensity beam facility at the CERN SPS (17'+3')**

**Speaker**

Guglielmo Frisella

12:00–12:20

**Results from muon object performance with the ATLAS experiment at the LHC using Run-3 proton-proton collision data**

**Speaker**

Volker Austrup

12:20–12:40

**Displaced Muons in CMS: Performance and Applications in LLP Physics (17'+3')**

**Speaker**  
Marco Cruciani

12:40-13:00

**Probing Electroweak Interactions and Beyond the Standard Model Physics at Belle II (17'+3')**

**Speaker**  
Angelo Di Canto

13:00