

LHC TOP WG meeting

Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction

Monday 11 November 2024 14:00 (20 minutes)

Presenters: PALENCIA CORTEZON, Jose Enrique (Universidad de Oviedo (ES)); VOS, Marcel (IFIC Valencia (ES)); WAGNER, Wolfgang (Bergische Universitaet Wuppertal (DE))

Contribution ID: 2

Type: **not specified**

Measurement of $t\bar{T}$ + HF at CMS

Contribution ID: 3

Type: **not specified**

Measurement of $t\bar{t}$ production in association with additional b-jets in the $e\mu$ final state and measurement of top-quark pair production in association with charm quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector and comparison with the corresponding measurements at CMS

Monday 11 November 2024 14:30 (30 minutes)

ArXiv links:

<https://arxiv.org/abs/2407.13473>

<https://arxiv.org/abs/2409.11305>

Presenters: VAN DER LINDEN, Jan (Ghent University (BE)); HALEEM, Mahsana (Julius Max. Universitaet Wuerzburg (DE))

Contribution ID: 4

Type: **not specified**

Associated production of a top quark pair and a Higgs boson

Monday 11 November 2024 15:10 (20 minutes)

Presenter: SCHEULEN, Chris (Universite de Geneve (CH))

Contribution ID: 5

Type: **not specified**

Five-flavour scheme predictions for $t\bar{T}$ + $b\bar{B}$ at next-to-leading order accuracy

Monday 11 November 2024 16:20 (20 minutes)

ArXiv Link:

<https://arxiv.org/abs/2409.11305>

Presenters: FREDERIX, Rikkert (Lund University); MOSKALETS, Tetiana (Southern Methodist University (US))

Session Classification: Session

Contribution ID: 6

Type: **not specified**

tTbar production in heavy-ion collisions with the ATLAS and CMS detectors

Tuesday 12 November 2024 14:00 (20 minutes)

Presenters: Dr KRINTIRAS, Georgios (The University of Kansas (US)); POTEPA, Patrycja Anna (AGH University of Krakow (PL))

Session Classification: Session

Contribution ID: 7

Type: **not specified**

Probing the Time Structure of the Quark-Gluon Plasma with Top Quarks,

Tuesday 12 November 2024 14:30 (20 minutes)

Phys. Rev. Lett. 120, 232301 –Published 8 June 2018,
<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.120.232301>

Presenter: Dr MILHANO, Guilherme (LIP-Lisbon & CERN TH)

Session Classification: Session

Contribution ID: 8

Type: **not specified**

Hadronic Top Quark Polarimetry with ParticleNet and Analytical Insights on Hadronic Top Quark Polarimetry

Tuesday 12 November 2024 09:00 (20 minutes)

e-Print: 2407.01663 [hep-ph] and e-Print:2407.07147 [hep-ph]

Presenter: NAVARRO, Alberto (Oklahoma State University)

Session Classification: Session

Contribution ID: 9

Type: **not specified**

Measurements of inclusive and differential cross sections for top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV

Tuesday 12 November 2024 09:30 (20 minutes)

<https://arxiv.org/abs/2410.23475>

Presenter: RIBEIRO LOPES, Beatriz (CERN)

Session Classification: Session

Contribution ID: **10**

Type: **not specified**

Top-quark pair production as a probe of light top-philic scalars and anomalous Higgs interactions

Tuesday 12 November 2024 10:00 (20 minutes)

e-Print: 2406.06694 [hep-ph]

Presenter: TENTORI, Simone (UCLouvain)

Session Classification: Session

Contribution ID: 11

Type: **not specified**

Constraining HEFT(SMEFT) coefficients involving t-quarks from bound-states and the Hartree-Fock method

Tuesday 12 November 2024 11:00 (15 minutes)

Paper Link: <https://inspirehep.net/literature/2837955>

Presenter: LLANES-ESTRADA, Felipe J.

Session Classification: Session

Contribution ID: 12

Type: **not specified**

**Search for pair production of heavy particles
decaying to a top quark and a gluon in the
lepton+jets final state in proton-proton collisions at
 $\sqrt{s} = 13$ TeV at CMS**

Tuesday 12 November 2024 11:25 (20 minutes)

ArXiv: <https://arxiv.org/abs/2410.20601>

Presenter: LABE, Finn Jonathan (Universität Hamburg)

Session Classification: Session

Contribution ID: 13

Type: **not specified**

NNLO PDFs driven by top-quark data

Tuesday 12 November 2024 15:00 (20 minutes)

ArXiv: <https://arxiv.org/abs/2407.00545>

Presenter: GARZELLI, Maria Vittoria (Hamburg University (DE))

Session Classification: Session

Contribution ID: 14

Type: **not specified**

Search for same-sign top-quark production in ATLAS

Tuesday 12 November 2024 11:55 (20 minutes)

Presenter: VAN DER GRAAF, Aaron (Technische Universitaet Dortmund (DE))

Session Classification: Session

Contribution ID: 15

Type: **not specified**

Combined effective field theory interpretation of Higgs boson, electroweak vector boson, top quark, and multi-jet measurements

Tuesday 12 November 2024 16:00 (20 minutes)

CMS-PAS-SMP-24-003, <https://cds.cern.ch/record/2911229>

Presenter: STAGER, Fabian (University of Zurich (CH))

Session Classification: Session

Contribution ID: 16

Type: **not specified**

A summary of the Oxford workshop on entanglement

Tuesday 12 November 2024 16:30 (20 minutes)

Presenter: DEMINA, r (University of Rochester (US))

Session Classification: Session

Contribution ID: 17

Type: **not specified**

Introduction

Wednesday 13 November 2024 09:15 (15 minutes)

Presenter: Prof. MALTONI, Fabio (Universite Catholique de Louvain (UCL) (BE) and Università di Bologna)

Session Classification: Session: Toponium at the LHC

Contribution ID: **18**

Type: **not specified**

Hunting toponium at the LHC

Wednesday 13 November 2024 09:35 (15 minutes)

Presenter: AGUILAR SAAVEDRA, Juan Antonio (Consejo Superior de Investigaciones Científicas (ES))

Session Classification: Session: Toponium at the LHC

Contribution ID: 19

Type: **not specified**

Search for heavy pseudoscalar and scalar bosons decaying to top quark pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV

Wednesday 13 November 2024 09:55 (20 minutes)

CMS-PAS-HIG-22-013, <http://cds.cern.ch/record/2911775>

Presenter: JEPPE, Laurids (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Session: Toponium at the LHC

Contribution ID: 20

Type: **not specified**

Precision toponium physics

Wednesday 13 November 2024 10:25 (20 minutes)

Presenter: KIYO, Yuichiro

Session Classification: Session: Toponium at the LHC

Contribution ID: 21

Type: **not specified**

QCD MC friendly predictions for toponium at the LHC

Presenter: FUKS, Benjamin

Session Classification: Session: Toponium at the LHC

Contribution ID: 22

Type: **not specified**

QCD MC friendly predictions for toponium at the LHC

Wednesday 13 November 2024 11:25 (20 minutes)

Presenter: FUKS, Benjamin

Session Classification: Session

Contribution ID: 23

Type: **not specified**

TBC

Session Classification: Session

Contribution ID: 24

Type: **not specified**

ESPPU

Wednesday 13 November 2024 11:55 (20 minutes)

Presenter: DUNFORD, Monica (Heidelberg University (DE))

Session Classification: Session

Contribution ID: 25

Type: **not specified**

Discussion

Session Classification: Session: Toponium at the LHC

Contribution ID: 26

Type: **not specified**

tt+HF modelling

Monday 11 November 2024 17:00 (20 minutes)

Presenter: KATZY, Judith (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Session