

5th RED LHC workshop



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome

Monday, May 10, 2021 9:30 AM (15 minutes)

Session Classification: Anomalies

Contribution ID: 2

Type: **not specified**

Topping-up multilepton plus b-jets anomalies at the LHC with a Z' boson

Monday, May 10, 2021 9:45 AM (15 minutes)

Primary author: JUSTE ROZAS, Aurelio (ICREA and IFAE (ES))

Presenter: JUSTE ROZAS, Aurelio (ICREA and IFAE (ES))

Session Classification: Anomalies

Contribution ID: 3

Type: **not specified**

Systematic approach to B-physics anomalies and t-channel dark matter

Monday, May 10, 2021 10:00 AM (15 minutes)

Primary author: Dr MESCIA, Federico (Universitat de Barcelona)

Presenter: Dr MESCIA, Federico (Universitat de Barcelona)

Session Classification: Anomalies

Contribution ID: 4

Type: **not specified**

Lepton Flavour Universality tests at the LHCb experiment

Monday, May 10, 2021 10:15 AM (15 minutes)

Primary author: GIOVENTU, Alessandra (Universidade de Santiago de Compostela (ES))

Presenter: GIOVENTU, Alessandra (Universidade de Santiago de Compostela (ES))

Session Classification: Anomalies

Contribution ID: 5

Type: **not specified**

$B_s \rightarrow \mu\mu$ analysis

Monday, May 10, 2021 10:30 AM (15 minutes)

Primary author: MOMBÄCHER, Titus (Universidade de Santiago de Compostela (ES))

Presenter: MOMBÄCHER, Titus (Universidade de Santiago de Compostela (ES))

Session Classification: Anomalies

Contribution ID: 6

Type: **not specified**

Search for EWK production of charginos and neutralinos in pp collisions at 13 TeV at CMS

Monday, May 10, 2021 11:30 AM (15 minutes)

Primary author: ERICE CID, Carlos Francisco (Universidad de Oviedo (ES))

Presenter: ERICE CID, Carlos Francisco (Universidad de Oviedo (ES))

Session Classification: Beyond the Standard Model

Contribution ID: 7

Type: **not specified**

Search for light stop pairs in 2L final state at CMS

Monday, May 10, 2021 11:45 AM (15 minutes)

Presenter: GONZALEZ, Juan (Universidad de Oviedo (ES))

Session Classification: Beyond the Standard Model

Contribution ID: 8

Type: **not specified**

Searches for new physics in lepton and missing transverse momentum final states in CMS

Monday, May 10, 2021 12:15 PM (15 minutes)

Primary author: BACHILLER PEREA, Irene (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas)

Presenter: BACHILLER PEREA, Irene (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas)

Session Classification: Beyond the Standard Model

Contribution ID: 9

Type: **not specified**

SUSY (edge y top/chargino) at CMS

Monday, May 10, 2021 12:00 PM (15 minutes)

Primary authors: MARTINEZ, Pablo; MARTINEZ RUIZ DEL ARBOL, Pablo (Universidad de Cantabria and CSIC (ES))

Presenters: MARTINEZ, Pablo; MARTINEZ RUIZ DEL ARBOL, Pablo (Universidad de Cantabria and CSIC (ES))

Session Classification: Beyond the Standard Model

Contribution ID: **10**

Type: **not specified**

Searches for dark matter in ATLAS

Wednesday, May 12, 2021 11:45 AM (15 minutes)

Primary authors: BOGAVAC, Danijela (IFAE - Barcelona (ES)); BOGAVAC, Danijela (The Barcelona Institute of Science and Technology (BIST) (ES))

Presenters: BOGAVAC, Danijela (IFAE - Barcelona (ES)); BOGAVAC, Danijela (The Barcelona Institute of Science and Technology (BIST) (ES))

Session Classification: Dark Matter / Machine learning / Future of Red LHC

Contribution ID: 11

Type: **not specified**

Higgs WW at CMS

Tuesday, May 11, 2021 10:15 AM (15 minutes)

Primary author: PIEDRA GOMEZ, Jonatan (Universidad de Cantabria and CSIC (ES))

Presenter: PIEDRA GOMEZ, Jonatan (Universidad de Cantabria and CSIC (ES))

Session Classification: SM / EW / Higgs

Contribution ID: 12

Type: **not specified**

Search for Higgs-boson pair prod. in the bb $\gamma\gamma$ final state at 13 TeV at ATLAS

Tuesday, May 11, 2021 10:30 AM (15 minutes)

Primary author: SAYAGO GALVAN, Ivan (Univ. of Valencia and CSIC (ES))

Presenter: SAYAGO GALVAN, Ivan (Univ. of Valencia and CSIC (ES))

Session Classification: SM / EW / Higgs

Contribution ID: 13

Type: **not specified**

Standard Model Measurements at 5 TeV at CMS

Tuesday, May 11, 2021 9:45 AM (15 minutes)

Primary author: ALVAREZ GONZALEZ, Barbara (Universidad de Oviedo (ES))

Presenter: ALVAREZ GONZALEZ, Barbara (Universidad de Oviedo (ES))

Session Classification: SM / EW / Higgs

Contribution ID: 14

Type: **not specified**

Semileptonic Hyperon Decays at LHCb

Tuesday, May 11, 2021 9:30 AM (15 minutes)

Primary author: BREA RODRIGUEZ, Alexandre (Universidade de Santiago de Compostela (USC), IGFAE)

Presenter: BREA RODRIGUEZ, Alexandre (Universidade de Santiago de Compostela (USC), IGFAE)

Session Classification: SM / EW / Higgs

Contribution ID: 15

Type: **not specified**

HEPfit: a code for the combination of indirect and direct constraints on high energy physics models

Tuesday, May 11, 2021 10:00 AM (15 minutes)

Primary authors: DE BLAS, Jorge (INFN-Padova); Dr DE BLAS, Jorge (University of Padova); DE BLAS, Jorge (Universidad de Granada (ES)); Dr DE BLAS, Jorge (University of Padova); DE BLAS MATEO, Jorge (University of Notre Dame)

Presenters: DE BLAS, Jorge (INFN-Padova); Dr DE BLAS, Jorge (University of Padova); DE BLAS, Jorge (Universidad de Granada (ES)); Dr DE BLAS, Jorge (University of Padova); DE BLAS MATEO, Jorge (University of Notre Dame)

Session Classification: SM / EW / Higgs

Contribution ID: 16

Type: **not specified**

Higgs phenomenology as a probe of sterile neutrinos

Tuesday, May 11, 2021 10:45 AM (15 minutes)

Primary authors: CHALA, Mikael; Dr CHALA, Mikael (University of Granada)

Presenters: CHALA, Mikael; Dr CHALA, Mikael (University of Granada)

Session Classification: SM / EW / Higgs

Contribution ID: 17

Type: **not specified**

ttbar production with additional jets at CMS

Tuesday, May 11, 2021 11:30 AM (15 minutes)

Primary author: BROCHERO, Javier (Universidad de Cantabria and CSIC (ES))

Presenter: BROCHERO, Javier (Universidad de Cantabria and CSIC (ES))

Session Classification: Top / EFT

Contribution ID: **18**

Type: **not specified**

ttZ at ATLAS

Tuesday, May 11, 2021 11:45 AM (15 minutes)

Primary author: CARDILLO, Fabio (Univ. of Valencia and CSIC (ES))

Presenter: CARDILLO, Fabio (Univ. of Valencia and CSIC (ES))

Session Classification: Top / EFT

Contribution ID: **19**

Type: **not specified**

Evidence for 4-top production in ATLAS

Tuesday, May 11, 2021 12:00 PM (15 minutes)

Primary author: ORLANDO, Nicola (Institut de Fisica d'Altes Energies (IFAE))

Presenter: ORLANDO, Nicola (Institut de Fisica d'Altes Energies (IFAE))

Session Classification: Top / EFT

Contribution ID: 20

Type: **not specified**

Beyond the SMEFT

Tuesday, May 11, 2021 12:15 PM (15 minutes)

Primary author: PEREZ-VICTORIA, Manuel (University of Granada)

Presenter: PEREZ-VICTORIA, Manuel (University of Granada)

Session Classification: Top / EFT

Contribution ID: 21

Type: **not specified**

DsixTools 2.0: the effective field theory toolkit

Tuesday, May 11, 2021 12:30 PM (15 minutes)

Primary author: VIRTO, Javier (Universitat de Barcelona)

Presenter: VIRTO, Javier (Universitat de Barcelona)

Session Classification: Top / EFT

Contribution ID: 22

Type: **not specified**

Top EW EFT couplings at LHC

Tuesday, May 11, 2021 12:45 PM (15 minutes)

Primary author: MIRALLES, Victor (IFIC)

Presenter: MIRALLES, Victor (IFIC)

Session Classification: Top / EFT

Contribution ID: 23

Type: **not specified**

Non-resonant ALP Searches at the LHC

Monday, May 10, 2021 12:30 PM (15 minutes)

Primary authors: FERNANDEZ DE TROCONIZ, Jorge (Universidad Autonoma de Madrid (ES)); FERNANDEZ DE TROCONIZ, Jorge (Universidad Autonoma de Madrid (ES))

Presenters: FERNANDEZ DE TROCONIZ, Jorge (Universidad Autonoma de Madrid (ES)); FERNANDEZ DE TROCONIZ, Jorge (Universidad Autonoma de Madrid (ES)); TROCONIZ, Jorge

Session Classification: Beyond the Standard Model

Contribution ID: 24

Type: **not specified**

Bs/ALPs -> $\gamma\gamma$ and other exotica results at LHCb

Monday, May 10, 2021 12:45 PM (15 minutes)

Primary author: CASAIS VIDAL, Adrian (Instituto Galego de Física de Altas Enerxías (ES))

Presenter: CASAIS VIDAL, Adrian (Instituto Galego de Física de Altas Enerxías (ES))

Session Classification: Beyond the Standard Model

Contribution ID: 25

Type: **not specified**

Higgsino Dark Matter in the MSSM

Wednesday, May 12, 2021 11:30 AM (15 minutes)

Primary author: QUIROS CARCELEN, Mariano (The Barcelona Institute of Science and Technology (BIST) (ES))

Presenter: QUIROS CARCELEN, Mariano (The Barcelona Institute of Science and Technology (BIST) (ES))

Session Classification: Dark Matter / Machine learning / Future of Red LHC

Contribution ID: 26

Type: **not specified**

Comparing Weak- and Unsupervised Methods for Resonant Anomaly Detection

Wednesday, May 12, 2021 12:00 PM (15 minutes)

Presenter: MARTÍN-RAMIRO, Pablo

Session Classification: Dark Matter / Machine learning / Future of Red LHC

Contribution ID: 27

Type: **not specified**

Anomaly detection with supervised learning

Wednesday, May 12, 2021 12:15 PM (15 minutes)

Primary author: AGUILAR-SAAVEDRA, Juan Antonio (University of Granada)

Presenter: AGUILAR-SAAVEDRA, Juan Antonio (University of Granada)

Session Classification: Dark Matter / Machine learning / Future of Red LHC

Contribution ID: 28

Type: **not specified**

(g-2)_μ and EW SUSY at the LHC

Wednesday, May 12, 2021 9:30 AM (15 minutes)

Presenter: HEINEMEYER, Sven (CSIC (Madrid, ES))

Session Classification: Muon (g-2) and implications for LHC

Contribution ID: 29

Type: **not specified**

The new $g-2$ result and the $\mu\nu$ SSM

Wednesday, May 12, 2021 9:45 AM (15 minutes)

Primary author: MUNOZ, Carlos (Universidad Autonoma de Madrid)

Presenter: MUNOZ, Carlos (Universidad Autonoma de Madrid)

Session Classification: Muon ($g-2$) and implications for LHC

Contribution ID: **30**

Type: **not specified**

Spin 3/2 or new fermions

Wednesday, May 12, 2021 10:00 AM (15 minutes)

Primary authors: DJOUADI, Abdelhak (LPT Orsay); DJOUADI, Abdelhak (Unite Reseaux du CNRS (FR))

Presenters: DJOUADI, Abdelhak (LPT Orsay); DJOUADI, Abdelhak (Unite Reseaux du CNRS (FR))

Session Classification: Muon (g-2) and implications for LHC

Contribution ID: 31

Type: **not specified**

Low-energy flavor symmetry breaking and $(g-2)_\mu$ at LHC

Wednesday, May 12, 2021 10:15 AM (15 minutes)

Primary author: VIVES GARCIA, Oscar Manuel (Univ. of Valencia and CSIC (ES))

Presenter: VIVES GARCIA, Oscar Manuel (Univ. of Valencia and CSIC (ES))

Session Classification: Muon $(g-2)$ and implications for LHC

Contribution ID: 32

Type: **not specified**

g-2 anomalies and neutrino mass

Wednesday, May 12, 2021 10:30 AM (15 minutes)

Primary author: CEPPEDELLO, Ricardo (IFIC (CSIC-Univ. Valencia))

Presenter: CEPPEDELLO, Ricardo (IFIC (CSIC-Univ. Valencia))

Session Classification: Muon (g-2) and implications for LHC

Contribution ID: **33**

Type: **not specified**

Discussion

Wednesday, May 12, 2021 10:45 AM (15 minutes)

Session Classification: Muon (g-2) and implications for LHC

Contribution ID: **34**

Type: **not specified**

Future of Red LHC

Wednesday, May 12, 2021 12:30 PM (30 minutes)

Presenter: GARCIA, Carmen (Univ. of Valencia and CSIC (ES))

Session Classification: Dark Matter / Machine learning / Future of Red LHC

Contribution ID: 35

Type: **not specified**

tbc

Session Classification: Dark Matter / Machine learning / Future of Red LHC

Contribution ID: **36**

Type: **not specified**

Latest LHCb results on φ s

Monday, May 10, 2021 10:45 AM (15 minutes)

Primary author: ROMERO, Marcos (Universidade de Santiago de Compostela (ES))

Presenter: ROMERO, Marcos (Universidade de Santiago de Compostela (ES))

Session Classification: Anomalies