

9th Mini-school on Particle and Astroparticle Physics



Report of Contributions

Contribution ID: **1**

Type: **not specified**

Welcome

Monday, 5 February 2024 10:00 (15 minutes)

Presenter: PIMENTA, Mário (LIP)

Contribution ID: 2

Type: **not specified**

The Standard Model in a nutshell

Monday, 5 February 2024 10:15 (45 minutes)

Presenter: JOAQUIM, Filipe (IST)

Contribution ID: 3

Type: **not specified**

Higgs Physics

Monday, 5 February 2024 11:30 (30 minutes)

Presenter: SILVA, Joao (CFTP/DF-IST)

Contribution ID: 4

Type: **not specified**

LHC Physics

Monday, 5 February 2024 12:00 (30 minutes)

Presenter: LEONARDO, Nuno (LIP)

Contribution ID: 5

Type: **not specified**

Hadron Physics: From nuclei to quarks and gluons

Monday, 5 February 2024 12:30 (30 minutes)

Presenter: BIERNAT, Elmar

Contribution ID: 6

Type: **not specified**

Flavour Physics

Monday, 5 February 2024 14:30 (30 minutes)

Presenter: VARZIELAS, Ivo

Contribution ID: 7

Type: **not specified**

Phenomenology of the strong interaction

Monday, 5 February 2024 15:00 (30 minutes)

Presenter: CHACHAMIS, Grigorios (LIP)

Contribution ID: 8

Type: **not specified**

TBA

Contribution ID: 9

Type: **not specified**

Neutrino Physics

Monday, 5 February 2024 15:30 (30 minutes)

Presenter: VILELA, Cristovao (LIP)

Contribution ID: **10**

Type: **not specified**

Messengers from the Universe

Monday, 5 February 2024 16:45 (30 minutes)

Presenter: CONCEIÇÃO, Rúben (LIP)

Contribution ID: **11**

Type: **not specified**

Space radiation/particle therapy

Monday, 5 February 2024 17:15 (30 minutes)

Presenter: Prof. GONÇALVES, Patrícia (LIP and Instituto Superior Técnico, Lisbon University)

Contribution ID: 12

Type: **not specified**

Hands-on informations/preparation

Monday, 5 February 2024 17:45 (45 minutes)

Contribution ID: 13

Type: **not specified**

Hands on Neutrinos

Presenter: VARZIELAS, Ivo

Contribution ID: 14

Type: **not specified**

The Dark Linear Seesaw

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: BATRA, Aditya

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 15

Type: **not specified**

Status of Dark Matter in S3-Symmetric Three-Higgs-Doublet Model

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: KUNCINAS, Anton (CFTP/IST)

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 16

Type: **not specified**

The muon anomalous magnetic moment in a two-Higgs doublet model

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: GONÇALVES, Bernardo

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 17

Type: **not specified**

Heavy Neutrino-Antineutrino Oscillations

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: SILVA DE OLIVEIRA, Bruno Miguel

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: **18**

Type: **not specified**

Search for CP violation in $H \rightarrow b\bar{b}\gamma$ decays at ATLA

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: COSTA, Carolina

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: **19**

Type: **not specified**

A new solution to old problems in particle/astroparticle physics

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: BRITO CÂMARA, Henrique

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 20

Type: **not specified**

Robust Searches for New Physics using Anomaly Detection at the LHC

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: PINTO, Inês

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 21

Type: **not specified**

Minimal U(1) two-Higgs-doublet models for quark and lepton flavour

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: ROCHA, José

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 22

Type: **not specified**

Study of the Higgs Boson Anomalous Couplings with the ATLAS detector

Monday, 5 February 2024 16:00 (45 minutes)

Presenter: SILVA, Marta

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 23

Type: **not specified**

Proton Therapy beyond cancer: The role in neurodegenerative disorders

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: COELHO, Carina

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 24

Type: **not specified**

Development of Microdosimetric Detectors for Radiobiology in Hadron Therapy Facilities

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: RODRIGUES, Cristiana

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 25

Type: **not specified**

Study of the viability of a scintillation detector for minibeam dosimetry

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: GUERREIRO, Duarte (LIP)

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 26

Type: **not specified**

A New Era in Neutrino Physics

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: SOARES, Guilherme (Universidade de Lisboa, IST (PT))

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 27

Type: **not specified**

New Physics searches at LHC using Anomaly Detection

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: MOREIRA, Inês (Master student @ Instituto Superior Técnico and LIP)

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 28

Type: **not specified**

Gold Nanoparticles as Radiosensitizers in Cancer Radiotherapy: A Monte Carlo Study

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: ANTUNES, Joana (LIP/FCUL)

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 29

Type: **not specified**

Development of new methods for the calibration of large cryogenic neutrino detectors based on intense

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: VENCES, Joana

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 30

Type: **not specified**

Study of new scintillating materials

Tuesday, 6 February 2024 10:45 (45 minutes)

Presenter: MACHADO, Rudnei (LIP)

Session Classification: Coffee Break & Poster Session by PhD and MSc students

Contribution ID: 31

Type: **not specified**

Research Opportunities at ATLAS

Tuesday, 6 February 2024 15:00 (22 minutes)

Presenter: CONDE MUÑO, Patricia (LIP)

Session Classification: Research Opportunities

Contribution ID: 32

Type: **not specified**

Symmetries in Particle Physics

Tuesday, 6 February 2024 15:22 (12 minutes)

Presenter: VARZIELAS, Ivo

Session Classification: Research Opportunities

Contribution ID: 33

Type: **not specified**

The Higgs boson as a window in New Physics

Tuesday, 6 February 2024 15:34 (12 minutes)

Presenter: ROMÃO, Jorge (CFTP/IST)

Session Classification: Research Opportunities

Contribution ID: 34

Type: **not specified**

Heavy Neutrino Antineutrino Oscillations

Tuesday, 6 February 2024 15:46 (12 minutes)

Presenter: HAJER, Jan (CFTP-IST)

Session Classification: Research Opportunities

Contribution ID: 35

Type: **not specified**

Research Opportunities at LIP's Phenomenology Group

Tuesday, 6 February 2024 16:10 (12 minutes)

Presenter: GUERRERO-RODRÍGUEZ, Pablo (LIP)

Session Classification: Research Opportunities

Contribution ID: 36

Type: **not specified**

Research at RADART/LIP

Tuesday, 6 February 2024 17:40 (12 minutes)

Presenter: SAMPAIO, Jorge (LIP / FCUL)

Session Classification: Research Opportunities

Contribution ID: 37

Type: **not specified**

Some Open Problems in Theoretical Particle Physics

Tuesday, 6 February 2024 16:52 (12 minutes)

Presenter: JOAQUIM, Filipe (IST)

Session Classification: Research Opportunities

Contribution ID: **38**

Type: **not specified**

Flavour@LHC: Heavy & Ligh

Tuesday, 6 February 2024 17:04 (12 minutes)

Presenter: LEONARDO, Nuno (LIP)

Session Classification: Research Opportunities

Contribution ID: 39

Type: **not specified**

Probing the Standard Model with the CMS@LHC

Tuesday, 6 February 2024 17:16 (12 minutes)

Presenter: PISANO, Matteo (LIP, IST)

Session Classification: Research Opportunities

Contribution ID: 40

Type: **not specified**

Probing the Standard Model with the CMS@LHC

Tuesday, 6 February 2024 17:28 (12 minutes)

Presenter: BOLETTI, Alessio (LIP, Lisboa (PT))

Session Classification: Research Opportunities

Contribution ID: 41

Type: **not specified**

Research opportunities with SNO+ and DUNE

Presenter: LOZZA, Valentina (LIP)

Session Classification: Research Opportunities

Contribution ID: 42

Type: **not specified**

Research opportunities with SNO+ and DUNE

Tuesday, 6 February 2024 15:58 (12 minutes)

Presenter: LOZZA, Valentina (LIP)

Session Classification: Research Opportunities

Contribution ID: 43

Type: **not specified**

Higgs tutorial

Tuesday, 6 February 2024 09:00 (1h 30m)

<https://cern.zoom.us/j/95647983406?pwd=U0hkTmFFVDZ4MEVHb2RiZGhncWRLdz09#success>

Presenter: PEDRO, Rute (LIP)

Session Classification: Hands on Higgs

Contribution ID: 44

Type: **not specified**

Neutrino's Tutorial

Presenter: LOZZA, Valentina (LIP)

Session Classification: Hands on QCD Jets

Contribution ID: 45

Type: **not specified**

Research Opportunities at LIP's Phenomenology Group

Presenter: GUERRERO-RODRÍGUEZ, Pablo (LIP)

Session Classification: Research Opportunities

Contribution ID: 46

Type: **not specified**

Hands on materials

Tuesday, 6 February 2024 09:00 (1h 30m)

Presenter: APOLINÁRIO, Liliana (LIP)

Session Classification: Hands on QCD Jets