

IMPRS Young Scientist Workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

WELCOME

Monday, 9 May 2022 11:30 (1 hour)

- Welcome to Ringberg Castle and the C19 imposed guidelines
Giulia ZANDERIGHI & Frank STEFFEN
- Introduction Round

Contribution ID: 2

Type: **not specified**

The AWAKE Experiment and Simulations of Self-Modulation

Monday, 9 May 2022 13:30 (25 minutes)

Presenter: MORALES GUZMAN, Pablo

Session Classification: AWAKE PHYSICS

Contribution ID: 3

Type: **not specified**

Computing amplitudes without knowing Feynman diagram

Monday, 9 May 2022 15:45 (25 minutes)

Presenter: LIM, Won

Session Classification: QUANTUM FIELD THEORY

Contribution ID: 4

Type: **not specified**

Differential Equations Method for Feynman Integrals

Monday, 9 May 2022 16:10 (25 minutes)

Presenter: MATIJASIC, Antonela

Session Classification: QUANTUM FIELD THEORY

Contribution ID: 5

Type: **not specified**

What if Primordial Black Holes evaporate slowly?

Monday, 9 May 2022 14:00 (25 minutes)

Presenter: ALEXANDRE, Ana

Session Classification: BLACK HOLES

Contribution ID: 6

Type: **not specified**

How special are black holes? Correspondence with objects saturating unitarity bounds in generic theories

Monday, 9 May 2022 14:25 (25 minutes)

Presenter: KAIKOV, Oleg

Session Classification: BLACK HOLES

Contribution ID: 7

Type: **not specified**

IMPRS PHD STUDENT SESSION

Monday, 9 May 2022 16:35 (55 minutes)

Presenter: HAGEMANN, Felix (Max-Planck-Institut für Physik)

Contribution ID: 8

Type: **not specified**

Tour of the Castle

Monday, 9 May 2022 17:30 (1 hour)

Contribution ID: 9

Type: **not specified**

Black Holes-Saturons Correspondence

Monday, 9 May 2022 14:50 (25 minutes)

Presenter: VALBUENA BERMUDEZ, Juan

Session Classification: BLACK HOLES

Contribution ID: 10

Type: **not specified**

Dualities in String Theory

Tuesday, 10 May 2022 09:15 (25 minutes)

Presenter: RAML, Thomas

Session Classification: STRING THEORY & EARLY UNIVERSE

Contribution ID: 11

Type: **not specified**

Constraints on the scalar potential from the SDC

Tuesday, 10 May 2022 09:40 (25 minutes)

Presenter: FREIGANG , Julian

Session Classification: STRING THEORY & EARLY UNIVERSE

Contribution ID: 12

Type: **not specified**

AGN physics with IceCube

Tuesday, 10 May 2022 11:00 (25 minutes)

Presenter: HA MINH, Martin

Session Classification: EXPERIMENTAL ASTROPARTICLE PHYSICS

Contribution ID: 13

Type: **not specified**

Combined analysis pipeline for joint observations with MAGIC and CTA LST-1

Tuesday, 10 May 2022 11:25 (25 minutes)

Presenter: PIROLA, Giorgio

Session Classification: EXPERIMENTAL ASTROPARTICLE PHYSICS

Contribution ID: 14

Type: **not specified**

Introducing novel order statistic tests based on spacings and their applications

Presenter: SHTEMBARI, Lolian

Session Classification: EXPERIMENTAL ASTROPARTICLE PHYSICS

Contribution ID: 15

Type: **not specified**

remoTES: the COSINUS sensor design

Tuesday, 10 May 2022 11:50 (25 minutes)

Presenter: KELLERMANN, Moritz

Session Classification: EXPERIMENTAL ASTROPARTICLE PHYSICS

Contribution ID: 16

Type: **not specified**

The curious case of Quenching Factor measurements with NaI crystals

Presenter: RAGUNATH, Mukund

Session Classification: COSINUS PHYSICS

Contribution ID: 17

Type: **not specified**

Measurement of non-prompt Lambda_c baryon production in pp collisions at $\sqrt{s} = 13$ TeV with ALICE

Tuesday, 10 May 2022 14:50 (25 minutes)

Presenter: BATTESTINI, Daniel

Session Classification: ALICE PHYSICS

Contribution ID: 18

Type: **not specified**

Experimental evidence for an attractive p-phi interaction

Tuesday, 10 May 2022 15:15 (25 minutes)

Presenter: CHIZZALI, Emma

Session Classification: ALICE PHYSICS

Contribution ID: 19

Type: **not specified**

Introduction to the BELLE 2 Experiment

Tuesday, 10 May 2022 14:00 (25 minutes)

Presenter: SCHMITT, Caspar

Session Classification: B(ELLE 2) PHYSICS

Contribution ID: 20

Type: **not specified**

Deep continuum suppression

Tuesday, 10 May 2022 14:25 (25 minutes)

Presenter: TITTEL, Oskar

Session Classification: B(ELLE 2) PHYSICS

Contribution ID: **21**

Type: **not specified**

LECTURE

Contribution ID: 22

Type: **not specified**

My favorite topic

Wednesday, 11 May 2022 15:45 (55 minutes)

Presenter: Prof. HEINRICH, Lukas

Session Classification: LECTURE

Contribution ID: 23

Type: **not specified**

Superfluid Dark Matter and Small Scale Structures

Tuesday, 10 May 2022 10:05 (25 minutes)

Presenter: CINTIA, Giordano

Session Classification: STRING THEORY & EARLY UNIVERSE

Contribution ID: 24

Type: **not specified**

False Vacuum Decay and Functional Determinants

Wednesday, 11 May 2022 09:00 (25 minutes)

Presenter: CAROSI, Matthias

Session Classification: THEORETICAL ASTROPARTICLE PHYSICS

Contribution ID: 25

Type: **not specified**

DFSZ Axions and where to find them - Part I

Wednesday, 11 May 2022 09:25 (25 minutes)

Presenter: DIEHL, Johannes

Session Classification: THEORETICAL ASTROPARTICLE PHYSICS

Contribution ID: 26

Type: **not specified**

DFSZ Axions and where to find them - Part 2

Wednesday, 11 May 2022 09:50 (25 minutes)

Presenter: KOUTSANGELAS, Emmanouil

Session Classification: THEORETICAL ASTROPARTICLE PHYSICS

Contribution ID: 27

Type: **not specified**

Multi-messenger astrophysics

Wednesday, 11 May 2022 11:10 (55 minutes)

Presenter: Dr CAPEL, Francesca

Session Classification: LECTURE & SESSION: MULTI-MESSENGER ASTROPHYSICS

Contribution ID: 28

Type: **not specified**

Multi-messenger characterization of Mrk 501 during historically low X-ray and γ -ray activity

Wednesday, 11 May 2022 12:05 (25 minutes)

Presenter: HECKMANN, Lea

Session Classification: LECTURE & SESSION: MULTI-MESSENGER ASTROPHYSICS

Contribution ID: 29

Type: **not specified**

Neutrino Flavor Instabilities in Core-Collapse Supernova

Wednesday, 11 May 2022 14:00 (25 minutes)

Presenter: EHRING, Jakob

Session Classification: THEORETICAL NEUTRINO & DARK MATTER PHYSICS

Contribution ID: **30**

Type: **not specified**

Light sterile neutrino electromagnetic properties

Presenter: HERRERA MORENO, Gonzalo

Session Classification: THEORETICAL NEUTRINO & DARK MATTER PHYSICS

Contribution ID: 31

Type: **not specified**

Proton Capture in Compact Dark Stars

Wednesday, 11 May 2022 14:25 (25 minutes)

Presenter: BETANCOURT, Boris

Session Classification: THEORETICAL NEUTRINO & DARK MATTER PHYSICS

Contribution ID: 32

Type: **not specified**

Inclusive Drell-Yan Production with Leptoquarks

Thursday, 12 May 2022 09:00 (25 minutes)

Presenter: SCHULTE, Stefan

Session Classification: LEPTOQUARK PHYSICS

Contribution ID: 33

Type: **not specified**

The LHC as Lepton–Proton Collider: Searches for Resonant Production of Leptoquarks

Thursday, 12 May 2022 09:25 (25 minutes)

Presenter: BUCHIN, Daniel

Session Classification: LEPTOQUARK PHYSICS

Contribution ID: 34

Type: **not specified**

Getting the most out of Mathematica

Wednesday, 11 May 2022 16:40 (55 minutes)

Presenter: HAHN, Thomas

Session Classification: LECTURE

Contribution ID: 35

Type: **not specified**

My favorite CRESST topic

Presenter: PUCCI, Francesca

Session Classification: UNDERGROUND PHYSICS

Contribution ID: 36

Type: **not specified**

Analysis of Lithium detectors with the CRESST experiment

Thursday, 12 May 2022 09:50 (25 minutes)

Presenter: BERTOLINI, Anna

Session Classification: UNDERGROUND PHYSICS

Contribution ID: 37

Type: **not specified**

Neutrinoless Double Beta Decay, How close are we?

Thursday, 12 May 2022 10:15 (25 minutes)

Presenter: ETTENGRUBER, Manuel

Session Classification: UNDERGROUND PHYSICS

Contribution ID: **38**

Type: **not specified**

From EFT to ERP

Thursday, 12 May 2022 20:00 (55 minutes)

Presenter: HWANG, Sungmin

Session Classification: CAREER OPPORTUNITIES

Contribution ID: 39

Type: **not specified**

NNLO+PS accuracy using the MiNNLOPS method

Friday, 13 May 2022 09:15 (25 minutes)

Presenter: ZANOLI, Silvia

Session Classification: PRECISION CALCULATIONS & PHENOMENOLOGY

Contribution ID: 40

Type: **not specified**

High precision calculations for heavy quark processes at LHC

Friday, 13 May 2022 09:40 (25 minutes)

Presenter: RATTI, Alessandro

Session Classification: PRECISION CALCULATIONS & PHENOMENOLOGY

Contribution ID: 41

Type: **not specified**

Soft functions in non-leptonic B decays

Presenter: TOELSTEDE, Jan-Niklas

Session Classification: PRECISION CALCULATIONS & PHENOMENOLOGY

Contribution ID: 42

Type: **not specified**

Effective Field Theory interpretation of the $H \rightarrow 4\ell$ Higgs boson decay measurements with the ATLAS detector

Friday, 13 May 2022 10:50 (25 minutes)

Presenter: REED, Alice

Session Classification: HIGGS PHYSICS

Contribution ID: 43

Type: **not specified**

Search for charged Higgs boson in $H^{\pm} \rightarrow Wh$ decays using the ATLAS detector

Friday, 13 May 2022 11:15 (25 minutes)

Presenter: GREWE, Simon

Session Classification: HIGGS PHYSICS

Contribution ID: 44

Type: **not specified**

Phenomenology of a light Higgs triplet in SU(5)

Friday, 13 May 2022 11:40 (25 minutes)

Presenter: STUHLFAUTH, Anja

Session Classification: HIGGS PHYSICS

Contribution ID: 45

Type: **not specified**

CLOSING REMARKS

Friday, 13 May 2022 12:25 (5 minutes)

Contribution ID: 46

Type: **not specified**

QCD axion couplings at finite density

Wednesday, 11 May 2022 10:15 (25 minutes)

Presenter: STADLBAUER, Michael

Session Classification: THEORETICAL ASTROPARTICLE PHYSICS

Contribution ID: 47

Type: **not specified**

IMPRS Discussion Round

Friday, 13 May 2022 12:05 (25 minutes)