

2nd Training School COST Action COSMIC WISPerS (CA21106)



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Report of Contributions

Contribution ID: 1

Type: **not specified**

Registration

Contribution ID: 2

Type: **not specified**

Pre-school: Standard Model and beyond

Monday 10 June 2024 09:30 (1 hour)

Presenter: GROSSMAN, Yuval

Contribution ID: 3

Type: **not specified**

Pre-school: Standard Model and beyond

Monday 10 June 2024 11:00 (1 hour)

Presenter: GROSSMAN, Yuval

Contribution ID: 4

Type: **not specified**

Pre-school: Standard Model and beyond

Monday 10 June 2024 14:00 (1 hour)

Presenter: GROSSMAN, Yuval

Contribution ID: 5

Type: **not specified**

WISPs and gamma-ray astrophysics

Presenter: CALORE, Francesca

Session Classification: WG3 - WISPs and gamma-ray astrophysics

Contribution ID: 6

Type: **not specified**

WISPs and gamma-ray astrophysics

Presenter: CALORE, Francesca

Session Classification: WG3 - WISPs and gamma-ray astrophysics

Contribution ID: 7

Type: **not specified**

Pre-school: Standard Model and beyond

Monday 10 June 2024 15:30 (1 hour)

Presenter: GROSSMAN, Yuval

Contribution ID: 8

Type: **not specified**

WG3 - WISPs and gamma-ray astrophysics

Tuesday 11 June 2024 09:00 (1h 30m)

Presenter: CALORE, Francesca

Contribution ID: 9

Type: **not specified**

WG3 - WISPs and gamma-ray astrophysics

Tuesday 11 June 2024 11:00 (1h 30m)

Presenter: CALORE, Francesca

Contribution ID: **10**

Type: **not specified**

WG3 - Tutorial

Tuesday 11 June 2024 14:00 (1h 30m)

Presenter: ECKNER, Christopher

Contribution ID: 11

Type: **not specified**

Discussion

Tuesday 11 June 2024 15:50 (25 minutes)

Contribution ID: 12

Type: **not specified**

WG3 - WISPs and gamma-ray astrophysics

Presenter: CALORE, Francesca

Contribution ID: 13

Type: **not specified**

WG4 - Axion searches in colliders

Wednesday 12 June 2024 08:30 (1h 30m)

Presenter: ZUPAN, Jure

Contribution ID: 14

Type: **not specified**

WG4 - Axion searches in colliders

Wednesday 12 June 2024 10:15 (1h 30m)

Presenter: ZUPAN, Jure

Contribution ID: 15

Type: **not specified**

WG4 - Tutorial

Wednesday 12 June 2024 14:00 (1h 30m)

Presenter: TAMMARO, Michele

Contribution ID: **16**

Type: **not specified**

Discussion

Wednesday 12 June 2024 16:00 (30 minutes)

Contribution ID: 17

Type: **not specified**

WG1 - Axion Theory

Thursday 13 June 2024 09:00 (1h 30m)

Presenter: VILLADORO, Giovanni

Contribution ID: **18**

Type: **not specified**

WG1 - Axion Theory

Thursday 13 June 2024 11:00 (1h 30m)

Presenter: VILLADORO, Giovanni

Contribution ID: **19**

Type: **not specified**

WG1 - Tutorial

Thursday 13 June 2024 14:00 (1h 30m)

Presenter: PETROSSIAN-BYRNE, Rudin

Contribution ID: **20**

Type: **not specified**

Discussion

Contribution ID: 21

Type: **not specified**

Students' talks

Contribution ID: 22

Type: **not specified**

Topics in Science communication

Presenter: FABJAN, Dunja

Contribution ID: 23

Type: **not specified**

Public lecture

Tuesday 11 June 2024 18:00 (1 hour)

Presenter: ZAHARIJAS, Gabrijela

Contribution ID: 24

Type: **not specified**

Discussion

Thursday 13 June 2024 15:45 (30 minutes)

Contribution ID: 25

Type: **not specified**

WG2 - Axions in the early universe and cosmo bounds

Friday 14 June 2024 09:00 (1h 30m)

Presenter: SAFDI, Ben

Contribution ID: 26

Type: **not specified**

WG2 - Axions in the early universe and cosmo bounds

Friday 14 June 2024 11:00 (1h 30m)

Presenter: SAFDI, Ben

Contribution ID: 27

Type: **not specified**

WG2 - Tutorial

Friday 14 June 2024 14:00 (1h 30m)

Presenter: OPFERKUCH, Toby

Contribution ID: **28**

Type: **not specified**

Discussion

Friday 14 June 2024 16:00 (30 minutes)

Contribution ID: 29

Type: **not specified**

Topics in science communication

Presenter: FABJAN, Dunja

Contribution ID: **30**

Type: **not specified**

Students' talks

Contribution ID: 31

Type: **not specified**

ALPs coupled to nucleons shining into photons

Wednesday 12 June 2024 17:00 (10 minutes)

In this talk I will explore the phenomenology of Axion-Like Particles (ALPs) coupled to nucleons. I will argue that these couplings must descend from a high-energy theory where ALPs are coupled to both gluons and quarks, which could naturally induce a low-energy coupling to photons. In this scenario, I will discuss the low-energy phenomenology for these ALPs, focusing on their production in core-collapse Supernovae. In particular, the induced photon coupling allows ALPs with masses m_a *gtrsim* 1 MeV to efficiently decay into photon pairs. Then, I will show how the related astrophysical observables can severely constrain the ALP parameter space, enlarging the region ruled out by the usual SN cooling bound.

Presenter: LELLA, Alessandro

Contribution ID: 32

Type: **not specified**

Application of polarimeter for detection of scalar (pseudoscalar) dark matter

Wednesday 12 June 2024 17:10 (10 minutes)

Presenter: ROKN, Quazal

Contribution ID: 33

Type: **not specified**

Polarimetry Techniques for Vacuum Magnetic Birefringence

Wednesday 12 June 2024 17:20 (10 minutes)

Presenter: ROBERTS, Laura

Contribution ID: 34

Type: **not specified**

Radiation from Global Axion Strings

Wednesday 12 June 2024 17:30 (10 minutes)

Presenter: KALTSCHMIDT, Mathieu

Contribution ID: 35

Type: **not specified**

Baryon violation induced by an Axion

Wednesday 12 June 2024 17:40 (10 minutes)

Presenter: BRUGEAT, Théo

Contribution ID: 36

Type: **not specified**

The Cosmic Axion Spin Precession Experiment (CASPEr)

Presenter: RUMI, Ophir

Contribution ID: 37

Type: **not specified**

Searching for WISPs at the LHC with the MoEDAL-MAPP Experiment

Wednesday 12 June 2024 17:50 (10 minutes)

Presenter: STAELENS, Michael

Contribution ID: **38**

Type: **not specified**

GeV ALP from TeV Vector-like Leptons

Wednesday 12 June 2024 18:00 (10 minutes)

Presenter: FUENTES ZAMORO, Marta

Contribution ID: 39

Type: **not specified**

From vacuum decay to gravitational waves

Thursday 13 June 2024 16:30 (10 minutes)

Presenter: MATTEINI, Marco

Contribution ID: 40

Type: **not specified**

Hunting for Dark Photon-Photon Tridents

Thursday 13 June 2024 16:40 (10 minutes)

Presenter: NGUYEN, Thong

Contribution ID: 41

Type: **not specified**

Dark matter detection with superconducting qubit in RADES experiment

Thursday 13 June 2024 16:50 (10 minutes)

Presenter: GU, Yikun

Contribution ID: 42

Type: **not specified**

Using Functional Methods to study Quantum Axion-Electrodynamics

Thursday 13 June 2024 17:10 (10 minutes)

Presenter: GONÇALVES, Henrique

Contribution ID: 43

Type: **not specified**

Overview of axion-electrodynamics

Thursday 13 June 2024 17:00 (10 minutes)

Presenter: ABOUNNASR MARTINS, Théo

Contribution ID: 44

Type: **not specified**

Probing freeze-in via invisible Higgs decay

Thursday 13 June 2024 17:20 (10 minutes)

Presenter: OLIVEIRA, Vinícius

Contribution ID: 45

Type: **not specified**

Binary pulsars as fuzzy dark matter detectors

Thursday 13 June 2024 17:30 (10 minutes)

Presenter: KÜS, Pavel

Contribution ID: 46

Type: **not specified**

Effects of thermal fluctuations on the QCD axion string-wall network

Thursday 13 June 2024 17:40 (10 minutes)

Presenter: MARIA FAVITTA, Amedeo

Contribution ID: 47

Type: **not specified**

Topics in science communication

Tuesday 11 June 2024 16:15 (1h 30m)

Presenter: FABJAN, Dunja

Contribution ID: 48

Type: **not specified**

Welcome to COST Action CA21106 2nd Training School

Presenter: MIRIZZI, Alessandro

Contribution ID: 49

Type: **not specified**

Welcome to COST Action CA21106 2nd Training School

Tuesday 11 June 2024 08:45 (15 minutes)

Presenter: MIRIZZI, Alessandro