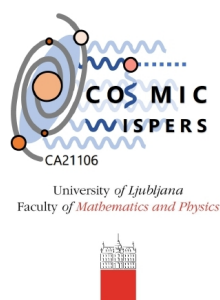


# 2nd Training School COST Action COSMIC WISPer (CA21106)



## 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:** RUIMI, 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