

## **Session Program**

**25-29 Jul 2022**



# **27th International Symposium on Particles, Strings and Cosmology**

## ***Parallel Session A***

Max Planck Institute for Nuclear Physics, Heidelberg, Germany  
Saupfercheckweg 1 69117 Heidelberg Germany

# Monday 25 July

14:00

## Parallel Session A: Dark Matter

Session | Location: Main Lecture Hall | Convener: Michael Schmidt

14:00–14:18

### Composite Dark Matter and Neutrino Masses from a Light Hidden Sector

**Speaker**

Saereh Najjari

14:18–14:36

### Minimal realization of light thermal Dark Matter

**Speaker**

Johannes Herms

14:36–14:54

### Features of Multipartite Dark Matter models

**Speaker**

Subhaditya Bhattacharya

14:54–15:12

### Multi-component dark sectors: the role of asymmetries and conversions

**Speaker**

Drona Vatsyayan

15:12–15:30

### Z3 Scalar Dark Matter with Strong Gamma-Ray and Positron Fluxes

**Speaker**

Bastian Diaz

15:30

16:00

## Parallel Session A: Neutrino Physics

Session | Location: Main Lecture Hall | Convener: Sudip Jana

16:00–16:18

### Probing the $\nu_{\text{R}}$ -philic $Z'$ at DUNE near detector

**Speaker**

Garv Chauhan

16:18–16:36

### Exploring non standard interactions sensitivities for T2HK and DUNE

**Speaker**

Anjan Giri

16:36–16:54

### Resolving the NOvA and T2K tension in the presence of Neutrino Non-Standard Interactions

**Speaker**

Sabya Sachi Chatterjee

16:54–17:12

### New physics potential of future tau neutrino telescopes

**Speaker**

Guoyuan Huang

17:50

## Tuesday 26 July

11:00

### Parallel Session A: Dark Matter

**Session** | **Location:** Main Lecture Hall | **Convener:** Felix Kling

11:00–11:18

#### The role of fluctuations in the cosmological relaxation of the weak scale

**Speaker**

Aleksandr Chatrchyan

11:18–11:36

#### On the Detection of QCD Axion Dark Matter by Coherent Scattering

**Speaker**

Satoshi Shirai

11:36–11:54

#### Dark sector results from Belle II

**Speaker**

Paul Feichtinger

11:54–12:12

#### Current Status and Future Prospects of the DMRadio Resonant Lumped Element Axion Searches

**Speaker**

Alexander Friedrich Leder

12:30

14:00

### Parallel Session A: Dark Matter

**Session** | **Location:** Main Lecture Hall | **Convener:** Aqeel Ahmed

14:00–14:18

#### Freeze-in and freeze-out of sterile neutrino dark matter

**Speaker**

Michael Schmidt

14:18–14:36

#### Roads to Right-handed neutrino Dark Matter

**Speaker**

Giorgio Arcadi

14:36–14:54

#### Neutrino non-standard self-interactions and their impact on sterile neutrino dark matter

**Speaker**

Cristina Benso

14:54–15:12

#### Reviving the keV neutrino: a novel production mechanism for sterile neutrino dark matter

**Speaker**

Carlos Jaramillo

15:30

16:00

## Parallel Session A: Dark Matter

Session | Location: Main Lecture Hall | Convener: Asher Berlin

16:00-16:18 **Einstein-Cartan Portal to Dark Matter**

**Speaker**

Inar Timiryasov

16:18-16:36

**Revisiting the Galactic Center Excess in Gamma-rays with Multi-Messenger Observations**

**Speaker**

Dr Ilias Cholis

16:36-16:54

**Superradiant Production of Heavy Dark Matter from Primordial Black Holes**

**Speaker**

Mr Yong Xu

16:54-17:12 **Testing the mean field description of scalar field dark matter**

**Speaker**

Andrew Eberhardt

17:30

# Wednesday 27 July

11:00

## Parallel Session A: Neutrino Physics

Session | Location: Main Lecture Hall | Convener: Amir Khan

11:00-11:18

### Novel constraints on neutrino physics beyond the standard model from the CONUS experiment

**Speaker**

Thomas Rink

11:18-11:36

### Status of the NUCLEUS experiment

**Speaker**

Dr Victoria Wagner

11:36-11:54

### Probing non-standard neutrino interactions from future supernova neutrino observations

**Speaker**

Kensuke Akita

11:54-12:12

### Microscopic and Macroscopic Effects in the Decoherence of Neutrino Oscillations

**Speaker**

Ting Cheng

12:12-12:30

### Exploiting a future galactic supernova to probe neutrino magnetic moments

**Speaker**

Yago P Porto Silva

12:30-12:48

### Collective Effects in Supernova Neutrinos

**Speaker**

Pedro Dedin Neto

12:50

# Thursday 28 July

11:00

## Parallel Session A: Dark Matter

**Session** | **Location:** Main Lecture Hall | **Convener:** Giorgio Arcadi

11:00–11:18 **Warm dark matter from a gravitational freeze-in in extra-dimensions**

**Speaker**

Stefan Vogl

11:18–11:36

**t-channel singularity in dark matter considerations: the problem and its solution**

**Speaker**

Michał Iglicki

11:36–11:54

**Impact of bound states on non-thermal dark matter production**

**Speaker**

Julian Bollig

11:54–12:12

**A new software to compute MSSM squared amplitudes for particle physics and relic density calculations**

**Speaker**

Marco PALMIOTTO

12:12–12:30

**Effects of the modification of gravity on the production of primordial black holes**

**Speaker**

Antonio Enea Romano

12:30