

Session Program

18-20 Dec 2023



NuPhys2023: Prospects in Neutrino Physics

Poster Talks

King's College London
King's College London, Strand, London, WC2R 2LS

Monday 18 December

12:00

Poster Talks

Session | **Location:** King's College London, King's College London, Strand, London, WC2R 2LS

12:00–12:03 **The SNO+ journey towards $0\nu\beta\beta$**

Speakers

Ana Sofia Carpinteiro Inacio, Dr Benjamin Tam, William Parker

12:03–12:06 **Measuring SNO+ Scintillator Optics with SMELLIE**

Speaker

Po-Wei Huang

12:06–12:09

Calibration of the Scintillation Timing in SNO+ using In-Situ Backgrounds

Speaker

Rafael Hunt-Stokes

12:09–12:12

Cosmogenic Neutron Multiplicity in Water at SNO+

Speaker

Katharine Dixon

12:12–12:15

Muon track reconstruction in the scintillator phase of SNO+

Speaker

Jasmine Simms

12:15–12:18

Searching for neutrinoless double beta decay with the LEGEND experiment

Speaker

Giovanna Saleh

12:18–12:21

Pulse shape discrimination for reduction of alpha background in HPGe detectors

Speaker

Krzysztof Szczepanec

12:21–12:24

The HOLMES low activity implantation

Speaker

Dr Giovanni Gallucci

12:24–12:27

Design and Integration of JUNO-OSIRIS

Speaker

Narongkiat Rodphai

12:27–12:30

Prototyping Opaque Scintillator Detector Technology

Speaker

Jess Lock

12:30-12:33

A Magnetised High-Pressure Gaseous Argon TPC for the DUNE Near Detector**Speaker**

Francisco Martinez Lopez

12:33-12:36

The ASTAROTH project: an innovative light detector based on Silicon PhotoMultipliers for rare event physics and its applications in dark matter direct detection experiments**Speaker**

Valerio Toso

12:36-12:39

Towards the detection of ultra-low energetic neutrinos with plasma metamaterials**Speaker**

carlo Alfisi

12:40

17:30

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17:30-17:33

Atmospheric Background Reduction using CNNs in DSNB Searches at Super-Kamiokande Gd**Speaker**

Soniya Samani

17:33-17:36

Modelling Cosmic Ray Muon Spallation for a Hyper-Kamiokande DSNB Analysis**Speaker**

Jack Fannon

17:36-17:39

Multiperspective neutrino studies**Speaker**

Sara Rodríguez Cabo

17:39-17:42

Pseudo-Dirac neutrinos at JUNO**Speaker**

JACK,DENNIS FRANKLIN

17:42-17:45

Hunting for the cosmic neutrino background**Speaker**

Jack Shergold

17:45-17:48

Second leptogenesis: a source of large discrepancy between baryon and lepton asymmetries**Speaker**

Kazuki Enomoto

17:48-17:51

Probing the Nature of Heavy Neutral Leptons in Direct Searches and Neutrinoless Double Beta Decay

Speaker

Zhong Zhang

17:51-17:54

A new era of collider neutrino physics at the LHC: the SND@LHC experiment**Speaker**

Riddhi Biswas

17:54-17:57

Flavour measurements from track events at the IceCube Neutrino Observatory**Speaker**

Rogan Clark

17:57-18:00

High-energy neutrinos, magnetic moment and the strong magnetic field: Impact on the Flavor Composition and Glashow Events**Speaker**

Ting Cheng

18:00-18:03

Electric Charge Breaking in Neutrino Physics**Speaker**

Manuel Salewski

18:03-18:06

Neutrinos as possible probes for quantum gravity**Speaker**

MARCO DANILLO CLAUDIO TORRI

18:06-18:09

Reconstruction of Neutral Final-State Particles in Neutrino-Argon Interactions**Speaker**

Margot MacMahon

18:09-18:12

Cryogenic power over fiber for fundamental and applied physics at Milano-Bicocca: the Cryo-PoF project**Speaker**

Marta Torti

18:12-18:15

The front-end electronics of the DUNE Photon Detection System**Speaker**

Esteban Javier Cristaldo Morales

18:15-18:18

Alpha spectrometry measurements for low-background experiments**Speaker**

Milena Czubak

18:18-18:21

BUTTON (Boulby Underground Technology Testbed Observing Neutrinos) experiment**Speaker**

James William Gooding

Tuesday 19 December

17:20

Poster Talks

Session | **Location:** King's College London, King's College London, Strand, London, WC2R 2LS

17:20-17:23

Updated Treatment of Near Detector Systematics Uncertainties for the T2K 2024 Oscillation Analysis

Speaker

Ewan Miller

17:23-17:26

Preparing for the Precision Era: New Ways of Presenting T2K 2020 Oscillation Results

Speaker

Marvin Pfaff

17:26-17:29

Appearance of Tau Neutrinos in the Flux of Atmospheric Neutrinos at Super-Kamiokande

Speaker

Maitrayee Mandal

17:29-17:32

Non-Unitary Atmospheric Neutrino Mixing At Super-Kamiokande

Speaker

Rory Ramsden

17:32-17:35

An overview of the current status of the Hyper-Kamiokande Experiment

Speakers

George Burton, Sania Lewis

17:35-17:38

Probing Neutrino Oscillations with Reactor Antineutrinos in JUNO

Speaker

Vanessa Cerrone

17:38-17:41

Translating Near to Far Detector for DUNE Oscillation Analysis

Speaker

Alexander J Wilkinson

17:41-17:44

SoLAR: a novel technology for solar neutrino detection

Speaker

Guilherme Ruiz Ferreira

17:44-17:47

Measuring Solar Neutrino Oscillations in the SNO+ Detector

Speaker

Daniel Cookman

17:47-17:50

Investigating the use of the expansion formalism when modelling axial form-factors in CCQE

Speaker

Abi Peake

17:50-17:53

Neutrino energy scale measurements for final state interaction models in DUNE using advanced computing

Speaker

Aleena Rafique

17:53-17:56

2p-2h Cross Section Systematics in DUNE

Speaker

Lars Ludwig Hans Bathe-Peters

17:56-17:59

Differentiable nuclear deexcitation simulation for low energy neutrino physics: What, Why and How.

Speaker

Pablo Samuel Barham Alzas

17:59-18:02

MINERvA Data Preservation: Enabling Muon Fuzz Analysis

Speaker

Akeem Hart

18:02