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 0νββ**

Speakers
Ana Sofia Carpinteiro Inacio, Dr Benjamin Tam, William Parker

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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 Szczepaniec

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

Poster Talks

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

Poster Talks

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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 DANILO 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

18:21

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

Poster Talks

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 sate 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   **MINERνA Data Preservation: Enabling Muon Fuzz Analysis**

Speaker

Akeem Hart

18:02