

Session Program

12-16 Dec 2022



The poster for the XXV DAE-BRNS High Energy Physics Symposium 2022 features a large yellow 'DAE HEP 2022' logo on the left. To its right, a list of topics is presented in a grey box. A QR code is located on the right side of the poster. The bottom of the poster includes the text 'HOSTED BY IISER MOHALI' and 'DECEMBER 12TH TO 16TH', along with a row of logos for various institutions including IISER Mohali, TIFR, and others.

XXV DAE-BRNS HIGH ENERGY PHYSICS SYMPOSIUM 2022

TOPICS

- ASTROPARTICLE PHYSICS AND COSMOLOGY
- BEYOND THE STANDARD MODEL
- FORMAL THEORY
- FUTURE EXPERIMENTS AND DETECTOR DEVELOPMENT
- HEAVY IONS AND QCD
- HIGGS PHYSICS
- NEUTRINO PHYSICS
- QUARK AND LEPTON FLAVOUR PHYSICS
- SOCIETAL APPLICATIONS
- TOP QUARK AND EW PHYSICS

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DECEMBER 12TH TO 16TH

XXV DAE-BRNS High Energy Physics Symposium 2022

WG7 - Neutrino Physics

IISER Mohali, Lecture Hall Complex, IISER Mohali
IISER Mohali, Sector 81, Knowledge city, SAS Nagar, Punjab, India

Tuesday 13 December

15:00

WG7 - Neutrino Physics: D2-S4 - Parallel - 5

Session |**Location:** IISER Mohali, LH3, Lecture Hall Complex, IISER Mohali, Sector 81, Knowledge city, SAS Nagar, Punjab, India**Convener:** MOHAMMAD SAJJAD ATHAR

15:00–15:25

Physics opportunities with near and far detector at long baseline neutrino experiments

Speaker

Dr Poonam Mehta

15:30–15:45

Neutrino Non-Standard Interactions: a solution to the NOvA and T2K tension

Speaker

Sabya Sachi Chatterjee

15:45–16:00

Latest Results From the NOvA Experiment

Speaker

Richa Sharma

16:00–16:15

Detecting Solar dark matter neutrinos at KM3NeT from dark matter annihilations at the Solar core

Speaker

Mr Aman Gupta

16:15–16:30

Study of Neutrinoless Double Beta Decay and Lepton Flavour Violation in Standard Model extended with Sterile Neutrinos

Speaker

Ms Debashree Priyadarsini Das

16:30

Wednesday 14 December

11:00

WG7 - Neutrino Physics: D3-S5 - Parallel - 4

Session |

Location: IISER Mohali, LH3, Lecture Hall Complex, IISER Mohali, Sector 81, Knowledge city, SAS Nagar, Punjab, India

Conveners: MOHAMMAD SAJJAD ATHAR, Prof. Prafulla Behera

11:00–11:15

New physics studies with reactor antineutrinos and a deuterated liquid scintillator

Speaker

Suprabh Prakash

11:15–11:30

Neutrino Magnetic Moments in Left-Right Symmetric Model

Speaker

Ms Kiran Sharma

11:30–11:45

Fishing neutrinos in the Mediterranean sea: In quest for Non-Standard Neutrino Interactions

Speaker

Dr Nafis Rezwan Khan Chowdhury

11:45–12:00

Renormalization Group Evolution of Neutrino Mixing Angles & Masses

Speaker

Ankur Panchal

12:00–12:15

Neutrino flavor oscillations in a rotating spacetime

Speaker

Himanshu Swami

12:15–12:30

Impact of High Energy Electron Neutrino (Anti-neutrino) Events on NOvA Oscillation Sensitivities

Speaker

Ishwar Singh

13:00

16:00

WG7 - Neutrino Physics: D3-S6 - Parallel - 5

Session |

Location: IISER Mohali, LH3, Lecture Hall Complex, IISER Mohali, Sector 81, Knowledge city, SAS Nagar, Punjab, India

Conveners: Indumathi D., MOHAMMAD SAJJAD ATHAR

16:00–16:15

Requirements on common solutions to the LSND and MiniBooNE excesses: a post-MicroBooNE study

Speaker

Samiran Roy

16:15–16:30

Search for Sterile Neutrino at NOvA Experiment

18:00

Speaker
Mr Shivam .

16:30–16:45

Sterile neutrino inclusion resolves the octant degeneracy in presence of resonant matter effect

Speaker
Mr Supriya Pan

16:45–17:00

Earth tomography with oscillating neutrinos at ICAL

Speaker
Anuj Kumar Upadhyay

17:00–17:15

Discovery potential of multiton detectors in the searches of neutrinoless double beta decay

Speaker
Dr L. Singh

17:15–17:30

Strange particle production in neutrino interactions

Speaker
Atika Fatima

Thursday 15 December

11:00

WG7 - Neutrino Physics: D4-S7 - Parallel - 5

Session |

Location: IISER Mohali, LH3, Lecture Hall Complex, IISER Mohali, Sector 81, Knowledge city, SAS Nagar, Punjab, India

Conveners: MOHAMMAD SAJJAD ATHAR, Vipin Bhatnagar

11:00-11:25

Current status and future of Sterile Neutrino searches

Speaker

Dr Animesh Chatterjee

11:30-11:45

Investigating Lorentz Invariance Violation with the long baseline experiment P2O

Speaker

Mrs Nishat Fiza

11:45-12:00

Probing Non-Unitary Neutrino Mixing at INO-ICAL

Speaker

Mr SADASHIV SAHOO

12:00-12:15

τ -lepton polarization in the charged current ν_τ -N and ν_τ -A DIS processes

Speaker

Dr FARHANA ZAIDI

12:15-12:30

Analysis of non-isotropic Lorentz Invariance Violation for NO ν experiment in disappearance channel

Speaker

Saurabh Shukla

13:00

15:00

WG7 - Neutrino Physics: D4-S8 - Parallel - 5

Session |

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Conveners: MOHAMMAD SAJJAD ATHAR, Anjan Giri

15:00-15:15

Measurement of Reactor Anti-neutrinos with ISMRAN detector array

Speaker

Mr Roni Dey

15:15-15:30

The Search for Sterile Neutrinos with the SBN Experiment at Fermilab

Speaker

Biswaranjan Behera

15:30-15:45

Discrimination between Non Standard Interaction and Lorentz Invariance Violation at Protvino to ORCA experiment.

Speaker
Rudra Majhi

15:45–16:00

Propagation of error in the physics analysis with the variation in magnetic field in the ICAL detector

Speaker
Ms Honey Khindri

16:00–16:15

Current Status of the Accelerator Neutrino Nucleon Interaction Experiment (ANNIE)

Speaker
Dr Sijith Edayath

16:15–16:30

Antineutrino-A DIS cross sections for $\langle E_\nu \rangle \sim 6 \text{ GeV}$ at MINER ν A

Speaker
Ms Vaniya Ansari

16:30