

India-JINR Workshop on Particle, Nuclear, Neutrino Physics and Astrophysics

Monday, 10 November 2025

Nuclear Astrophysics, Quark, Lepton, and QCD, Neutrino physics - Vikram Sarabhai Hall (14:30 - 16:00)

-Conveners: Suresh Kumar Patra

time	[id] title	presenter
14:30	[16] QCD axions in dense matter and neutron star oscillations	Prof. MISHRA, Hiranmaya
15:00	[74] Neutron Stars as Particle Detectors: Probing the Nature of Dark Matter	Dr BHUYAN, Mrutunjaya
15:20	[18] Structure, Rotation, and Oscillation Properties of Anisotropic Dark Energy Stars	Prof. SREEKANTH, V
15:40	[19] Constraining the neutron star equation of state by including the isoscalar-vector and isovector-vector coupling using the Bayesian analysis	Dr KUMAR, Deepak

Tuesday, 11 November 2025

Nuclear Astrophysics, Quark, Lepton, and QCD, Neutrino physics (14:30 - 16:00)

-Conveners: P K Sahoo

time	[id] title	presenter
14:30	[40] Thermal effects on pre-supernova (anti)neutrino emission from nuclear processes	Dr DZHIOEV, Alan
15:00	[41] Implementation of Final-State Lepton Polarization for Quasielastic and 2p2h Processes in GENIE	Dr KAKORIN, Igor
15:20	[42] Large relative phase induced by charmonium in baryon–antibaryon production in electron–positron annihilation	Dr BYSTRITSKIY, Yury
15:40	[45] Correlation of Dark Matter Fermi Momentum with bulk properties of Dark Matter–Admixed Neutron Stars	Dr BISWAL, Subrata kumar

Nuclear Astrophysics, Quark, Lepton, and QCD, Neutrino physics (16:30 - 17:10)

-Conveners: Hiranmaya Mishra

time	[id] title	presenter
16:30	[75] Insights into Gravitational Redshift in the Context of Isolated Neutron Stars	Dr NATH, Kamal Krishna
16:50	[44] Entanglement in Neutrino System	Prof. PATRA, Sudhanwa

Wednesday, 12 November 2025

Nuclear Astrophysics, Quark, Lepton, and QCD, Neutrino physics (14:30 - 16:00)

-Conveners: Sanjay Kumar Swain

time	[id] title	presenter
14:30	[70] Overview of Neutrino Mass Models After LHC Run-II Data	Prof. GHOSH, Kirtiman
15:00	[72] Dark Matter Admixed Quarkyonic Stars as the Secondary Object in GW190814: A Two-Fluid Analysis	Dr PATTNAIK, Jeet Amrit
15:20	[69] Absolute Mass Probes in the 3+2 Sterile Neutrino Scenario	Dr N, Rajeev
15:40	[43] CMS HL-LHC Outer Tracker Upgrade activities at NISER	Dr RAHMAN, Masudur

Nuclear Astrophysics, Quark, Lepton, and QCD, Neutrino physics (16:15 - 16:55)

-Conveners: V Sreekanth

time	[id] title	presenter
16:15	[73] Compton Polarimeter, the opportunity, associated challenges and popular adaptations in the context of medium energy Physics.	Dr NARAYAN, Amrendra
16:35	[77] Insights into the QCD Phase Diagram from Nambu–Jona-Lasinio Type Models	Dr ALI, Mahammad Sabir