

AAPCOS - 2023 Program Schedule

23-01-2023 Session

09:00- 09:30 AAPCOS 2023 Registration

09:30 - 09:45 Welcome

Morning Session Chair: Ambar Ghosal

09:45 - 10:30 Possibilities with dark matter, Some minimum bias conclusions by Biswarup Mukhopadhyaya

10:30 - 11:30 Director's Address and High Tea

11:30 - 12:00 Non-thermal dark matter at reheating: production and evolution By Avirup Ghosh

12:00 - 12:20 Constraints on ultralight axions and gauge bosons from geodetic and frame dragging measurements by Tanmoy Poddar

12:20 - 12:40 Probing low scale lectogenesis with inflationary blue tilted gravitational waves By Satyabrata Datta

12:40 - 14:30 Lunch

Afternoon Session Chair : Srubabati Goswami

14:30 - 14:50 Chasing dark matter substructures in electron recoil direct detection experiments By Taraknath Maity

14:50 - 15:10 Dark Matter Approach of a Left-Right Symmetric Model- by Sanchari Bhattacharyya

15:10 - 15:30 CMB Imprint of high scale no-thermal Lectogenesis By Abhijit Saha

15:30 - 16:00 Tea

Evening Session Chair : Srubabati Goswami

16:00 - 16:45 Ruling out light axions: the writing is on the wall - by Subir Sarkar

16:45-17:15 Signatures of regular black holes from the shadow of Sgr A* and M87*-by Subhadip Sau

17:15 - 18:10 Poster Session

24-01-2023 Session

Morning Session Chair: Mala Das

09:30 - 10:15	Direct Detection of Dark Matter at SNOLab By Jeter Hall
10:15 - 11:00	Plenary Talk (TBA)
11:00 - 11:30	Tea
11:30 - 12:00	A Highly Sensitive Radon Emanation Measurement System at SNOLAB By Dimpal Chauhan
12:00 - 12:20	Alpha Quenching Factor in Liquid Argon By Susnata Seth
12:20 - 12:40	Exploring the direct detection of WIMP dark matter at Jaduguda Underground Science Laboratory (JUSL) By Suraj Ali
12:40 - 13:00	Strong cosmic censorship conjecture for a charged BTZ black hole By Chiranjeeb Singha
13:00 - 14:30	Lunch

Afternoon Session Chair: Indranil Chattopadhyay

14:30 - 15:15	The MAGIC of gamma-ray astronomy - by David Paneque
15:15 - 15:45	Invited Talk (TBA) By Ritaban Chatterjee
15:45 - 16:05	Prospects of Multi-messenger astronomy in the era of third generation of gravitational wave detectors By Biswajit Banerjee
16:05 - 16:30	Tea

Evening Session Chair: Ritaban Chatterjee

16:30 - 17:00	Do plasma composition affect the accretion and jets associated with the compact objects? -by Indranil Chattopadhyay
17:00 - 17:30	Supernova remnants as Galactic PeVatron candidates By Agnibha Dey Sarkar
17:30 - 17:50	Cosmic ray interactions with molecular clouds using GEANT4 simulation- by Abhijit Roy
17:50 - 18:10	Poster Session

25-01-2023 Session

Morning Session Chair: Debades Bandyopadhyay

9:30 - 10:15	Plenary Talk (TBA) by Subhendra Mohanty
10:15 - 11:00	Understanding nature's densest objects and the cosmos with gravity's messenger - by Sukanta Bose
11:00 - 11:30	Tea
11:30 - 12:00	Intermediate-mass black holes-mergers in the IGWN - by Archana Pai
12:00 - 12:30	Cosmology potential with a decihertz gravitational wave observatory - by Sanjit Mitra
12:30 - 13:00	Particle Swarm Optimisation in GW signal Detection - by Rajesh Nayek
13:00 - 14:30	Lunch

Afternoon Session Chair: Koushik Dutta

14:30 - 15:15	Continuous gravitational waves from spinning neutron stars: status and Outlook-by Reinhard Prix
15:15 -15:45	On the quark content of neutron star core - by Rana Nandi
15:45 -16:15	Modeling the dense nuclear matter equation of state consistent with the astrophysical observations - by Prasanta Char
16:15 - 16:45	Tea

Evening Session Chair: Koushik Dutta

16:45 - 17:15	Spanning the full range of neutron star properties within a microscopic description - by Tuhin Malik
17:15 - 17:45	Imprints of Non-standard cosmology on Leptogenesis - by Amit Dutta Banik
17:45 - 18:05	Rapid parameter estimation of compact binary sources using a meshfree approach - by Lalit Pathak
18:05 onwards	Conference Dinner

26-01-2023 Session

Morning Session Chair: Ambar Ghosal

10:00 - 11:30	Republic Day Celebration at SINP
11:30 - 12:15	Neutrino physics : Current Status and future trends- by Srubabati Goswami (TBA)
12:15 - 12:45	The first decade of neutrino astronomy with IceCube, and the way forward -by Md. Rameez
12:45 - 13:05	Looking for baryogenesis parameter space for Inverse seesaw model - by Ananya Mukherjee
13:05 - 14:30	Lunch

Afternoon Session Chair: Subhendra Mohanty

14:30 - 15:00	About generating small Yukawa couplings naturally from trans-Planckian asymptotic safety By Soumita Pramanick
15:00 - 15:45	Searching for gravitational waves from new physics with pulsar timing arrays-by Kai Schmitz
15:45 - 16:05	Reconstruction of nuclear matter parameters in a Bayesian approach By Sk MD Adil Imam
16:05 - 16:30	Tea

Evening Session Chair: Debasish Majumdar

16:30 - 16:50	Probing high energy scales and weakly coupled BSM via Gravitational Waves By Anish Ghoshal
16:50 - 17:10	Insights into high-energy emission from kpc-scale jets launched from black holes By Agniva Roy Chowdhary
17:10 - 17:30	Implication of nonstandard interaction in the generation of microscopic black hole events from ultra high energy neutrinos By Trisha Sarkar
17:30 - 17:50	A template-based search for exotic gravitational wave signals from astrophysical compact binaries By Abhishek Sharma
17:50 - 18:10	Poster Session

27-01-2023 Session

Morning Session Chair: Ranjan Laha

09:30 - 10:15	Hubble from Bubble - A new cosmic distance measure -by Shubhabrata Majumdar
10:15 - 10:45	Beyond-Gaussian statistics for cosmological clustering - k-Nearest Neighbor Distributions By Arka Benerjee
10:45 - 11:05	Viscous cosmological model and the validity of near equilibrium condition in the context of $f(R,T)$ gravity By Vishnu A Pai
11:05 - 11:30	Tea

Post Tea Session Chair: Shubhabrata Majumdar

11:30 - 12:00	High-energy neutrinos from the Sun as a discovery tool for dark matter - electron scattering -by Ranjan Laha
12:00 - 12:30	Phenomenology of cosmological moduli fields- by Kaushik Dutta
12:30 - 12:50	Investigating field-fluid non-minimal coupling in the context of Dynamical Stability Approach-by Anirban Chatterjee
12:50 - 13:10	Modified cosmology through Barrow entropy and its thermodynamic implications By Nandhida Krishnan P
13:10 - 13:30	Effects of Reheating on Moduli Stabilization By Khursid Alam
13:30 - 14:30	Lunch