

WORKSHOP 1

Gravitational Waves and High Energy Astrophysics

December 10, 2019

Session Chairs :

Poonam Chandra (poonam@ncra.tifr.res.in)

Anand Sengupta (asengupta@iitgn.ac.in)

Time	Name	Title
16:00 – 16:30	Sukanta Bose	Constraining neutron star equation of state using gravitational wave observations of compact binaries with neutron stars.
16:30 – 16:45	Golam M Hossain	Revisiting equation of state for white dwarfs within finite temperature quantum field theory
16:45 – 17:00	Muhammed Saleem	Constraining the properties of electromagnetic counterparts of binary neutron star mergers
17:00 – 17:15	Vivek Venkatraman Krishnan	Gravitational dynamics of relativistic binary pulsars
17:15 – 17:30	Rakesh Kabir	Use of wavelet transform and neural networks for analyzing gravitational waves

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Time	Name	Title
14:00 – 14:30	C. S. Unnikrishnan	Experiments to Ascertain the True Relativistic Nature of the Propagation of Gravitational Waves and Light
14:30 – 14:45	Varun Srivastava	Detection Prospects of Core-Collapse Supernovae with Supernova-Optimized Third-Generation Gravitational-wave Detectors
14:45 – 15:00	Disha Sawant	Long duration bursts in ET
15:00 – 15:15	Arman Tursunov	Fifty years of energy extraction from rotating black holes
15:15 – 15:30	Kailash Chandra Sahu	Detecting Isolated, Stellar-Mass Black Holes through Relativistic Deflection

Time	Name	Title
16:00 – 16:30	Abhirup Ghosh	Test of the Black-hole No-hair Conjecture with Observations of Gravitational Waves
16:30 – 16:45	Soumen Roy	Detection of non-quadrupole modes of gravitational waves from multiple inspiralling blackholes
16:45 – 17:00	Shaswat Kapadia	Compact Binary Merger Rates from LIGO-Virgo's First and Second Observing Runs
17:00 – 17:15	Krishnendu NV	Constraints on the binary black hole nature of GW151226 and GW170608 from the measurement of spin-induced quadrupole moments
17:15-17:30	Surajit Kalita	Continuous gravitational wave from magnetized compact objects

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Time	Speaker	Title
16:00 – 16:15	Vaishak Prasad	The correlation between the shear of the dynamical horizon of black holes and the gravitational wave strain at infinity in a BBH merger.
16:15 – 16:30	Sayantani Dutta	PARAMETRISED TESTS OF GENERAL RELATIVITY USING SINGULAR VALUE DECOMPOSITION.
16:30 – 16:45	Sunil Choudhary	Technique to distinguish Gravitational wave signals from noise transients
16:45-17:00	Apratim Ganguly	Constraining the fraction of compact dark matter from lensing of gravitational waves
17:00-17:15	Nirban Bose	Is eccentricity a crucial player in pinning down the binary black hole formation channel?
17:15-17:30	Aditya Vijaykumar	Probing Large Scale Structure with gravitational-wave observations of binary black holes
17:30-17:45	Srashti Goyal	Extracting gravitational wave polarizations from strongly lensed signals of the binary black hole mergers.