

ASI 2023 – List of Selected Abstracts – General Relativity and Cosmology

Name	Conference ID	Affiliation	Title	Abstract Type by SOC
Subhankar Patra	ASI2023_66	Indian Institute of Technology Guwahati	Properties of accretion flow in deformed Kerr spacetime	Oral
Saili Dutta	ASI2023_237	National Centre for Radio Astrophysics	The Dark Matter Halos of HI-selected Galaxies	Oral
Suman Chatterjee	ASI2023_347	National Center for Radio Astrophysics, Pune	The Tracking Tapered Gridded Estimator (TTGE) for the power spectrum from drift scan observations	Oral
Khandakar Md Asif Elahi	ASI2023_179	Indian Institute of Technology, Kharagpur	Towards 21-cm intensity mapping with uGMRT	Oral
GARGI SEN	ASI2023_67	Indian Institute of Technology Guwahati	Study of the relativistic accretion flow in a Kerr-Taub-NUT black-hole with shock	Oral
Soumen Mondal	ASI2023_560	Jadavpur University, Kolkata-32	Ideal E/IMRI vs Real E/IMRI system : Constraining Black Hole Parameters	Oral
Samik Mitra	ASI2023_43	INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI, INDIA	Global structure of shock-induced general relativistic magneto-hydrodynamics accretion flows around black holes	Oral
Souradeep Pal	ASI2023_575	Indian Institute of Science Education and Research Kolkata	Swarm-intelligent search for gravitational waves from eccentric binary mergers	Oral
Raj Prince	ASI2023_142	Center for Theoretical Physics, Warsaw, Poland	Constraining the Cosmology with Quasars	Oral
Kamal Krishna Nath	ASI2023_585	Indian Institute of Science Education and Research Bhopal	Universal relations for generic family of Neutron Star Equations of State	Oral
Chandra Shekhar Murmu	ASI2023_243	Indian Institute of Technology Indore	Probing the Epoch of Reionization with multi-tracer line-intensity mapping	Oral
Karthik Rajeev	ASI2023_427	Department of Physics, Indian Institute of Technology Bombay	Effective-one-body formalism for leading-order radiative effects in classical relativistic scattering dynamics	Oral
Deepika Bollimpalli	ASI2023_77	Max Planck Institute for Astrophysics	Dancing discs: Lense-Thirring precession and rapid variability in truncated accretion flows.	Oral
Abhishek Naskar	ASI2023_537	Indian Institute of Technology Bombay	A Unified EFT Approach to Understand Primordial Magnetogenesis	Oral
Joseph P J	ASI2023_517	Indian Institute of Technology Bombay	Testing the equivalence principle with Blackhole image observations	Oral
Shabbir Shaikh	ASI2023_500	Arizona State University, Tempe, Arizona, USA	CMB weak lensing and galaxy weak lensing cross-correlation using ACT-DR4 and DES-Y3	Oral
Shikhar Mittal	ASI2023_587	Tata Institute of Fundamental Research, Mumbai	Implications of the global 21-cm spectrum for high-redshift galaxies and JWST galaxy surveys	Oral

Anirban Chakraborty	ASI2023_78	National Centre for Radio Astrophysics (NCRA-TIFR)	Modelling the ionizing sources during the epoch of reionization	Oral
Anagh Venneti	ASI2023_644	Birla Institute of Technology and Sciences-Pilani, Hyderabad Campus	Study of correlation between Tidal Deformability and Nuclear Matter Parameters	Oral
Rashmi Sagar	ASI2023_645	IIT Indore	Probing the Epoch of Reionization using uGMRT with deep field observations in Band-2	Oral
Janakee Raste	ASI2023_678	National Centre for Radio Astrophysics	Studying the end of Reionization with the 21-cm Signal	Oral
Sagnik Chatterjee	ASI2023_207	Indian Institute of Science Education and Research Bhopal	A Neural Network Approach To Study The Speed Of Sound In Neutron Stars	Poster
Shashank Shekhar Pandey	ASI2023_28	Satyendra Nath Bose National Centre for Basic Sciences	Effect of inhomogeneities on the propagation of gravitational waves	Poster
Barun Maity	ASI2023_171	NCRA-TIFR	Efficient exploration of reionization parameters for the upcoming 21 cm observations using SCRIPT	Poster
Avijit Chowdhury	ASI2023_651	IIT Bombay	How a non-detectable mode can provide a hint of modified gravity?	Poster
Suman Pramanick	ASI2023_37	Indian Institute of Technology Kharagpur	Quantifying and mitigating the effect of snapshot intervals in the light-cone EoR 21-cm signal	Poster
MAYUSREE DAS	ASI2023_111	Indian institute of science	Plausible detection of rotating magnetized neutron stars by their continuous gravitational waves	Poster
Sohini Dutta	ASI2023_164	Indian Institute of Technology-Indore	Interpretation of multi-wavelength observations of the Epoch of Reionization from next-generation telescopes	Poster
SHAMIM HAQUE	ASI2023_215	INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHOPAL	Effects of Phase Transition in Gravitational Wave signals from Binary Neutron Star Mergers	Poster
Kaushik Paul	ASI2023_348	IIT Madras	2PN spin effects in spherical harmonic modes of the gravitational waveform from eccentric compact binary mergers	Poster
Anirban Chowdhary	ASI2023_370	Presidency University	Halo Occupation Distribution: Redshift Evolution and Effect of Feedback	Poster
Louise Rebecca	ASI2023_395	CHRIST (Deemed to be University)	Tidal Forces arising from MONG on dwarf galaxies in the Fornax Cluster	Poster
Anushka Doke	ASI2023_165	IISER Pune	Waveform Reconstruction of Gravitational Waves from Core-Collapse Supernovae	Poster
Sangita Chatterjee	ASI2023_161	Jadavpur University	Vertical Equilibrium Model for Accretion flow: An exact General Relativistic self consistent analysis	Poster
Junaid Yousuf	ASI2023_315	Department of Physics, University of Kashmir	How the uncertainties affect the detection of Stochastic Gravitational Wave background in the advanced LIGO.	Poster

Vednarayan Iyer	ASI2023_428	Indian Institute of Technology Indore	Improving the semi-numerical simulations for cosmic dawn 21-cm signal	Poster
Akhil Uniyal	ASI2023_494	IIT GUWAHATI	Study of the accretion disk properties around the black hole in the modified gravity	Poster
Raghunath Ghara	ASI2023_619	The Open University of Israel	Probing the Universe's First Billion Years with LOFAR EoR observation	Poster
Nobleson Kunjappu	ASI2023_674	Birla Institute of Technology & Science, Pilani Hyderabad Campus	Bayesian approach of parameter estimation in f(R) gravity	Poster
Sukhdeep Singh	ASI2023_23	Indian Institute of Technology Kharagpur	Effect of peculiar velocities on epoch of reionization bispectrum	Poster
Suvedha Naik	ASI2023_566	Manipal Centre for Natural Sciences, Centre of Excellence, Manipal Academy of Higher Education, Manipal	Observational constraints and prospects on primordial features due to particle production during inflation	Poster
Sayantana Pal	ASI2023_737	CESSI, IISER Kolkata	Radiation reaction effects in blackhole spacetimes and study of LISA orbits	Poster
Harikrishnan Menon	ASI2023_754	St.xavier's college	On the visibility of singularities in general relativity and modified gravity theories	Poster
Saswata Dasgupta	ASI2023_247	Indian Institute of Technology, Indore	Analysing HI 21-cm maps from the EoR via future SKA1-Low observations using the largest cluster statistics	Poster
Arun Kenath	ASI2023_332	CHRIST (Deemed to be University)	Astrophysical constraints on photon electric charge	Poster
Kiren OV	ASI2023_360	Christ (Deemed to be University)	Energetics of primordial planets composed of DM	Poster
Anshuman Tripathi	ASI2023_673	Indian Institute of Technology Indore (IIT Indore)	Extracting the 21cm Power Spectrum using Artificial Neural Networks	Poster
Pravita Hallur	ASI2023_219	Indian Institute of Science Education and Research, Mohali	Characterizing the Power Spectrum of General-relativistic Magnetohydrodynamic Simulations	Poster
M Laxman	ASI2023_434	IIT Madras	Phase of gravitational wave from intermediate mass ratio inspirals of compact binary black hole systems.	Poster
Gopika K	ASI2023_498	IIT, Hyderabad	Dark Matter Scaling Relations	Poster
Della Vincent	ASI2023_459	Christ (deemed to be) University, Bangalore	Escaping Pair-Instability Supernova Mass gap by Dark Matter admixture	Poster
Suprovo Ghosh	ASI2023_183	IUCAA	Parameter space for Continuous gravitational wave searches from r-modes in light of multi-messenger constraints	Poster
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Gunindra Krishna Mahanta	ASI2023_483	Bhabha Atomic Research Centre, Homi Bhabha National Institute	Geodesics in Quevedo Type II Geometry of 4D Asymptotically AdS Black Holes	Poster
DIVESH JAIN	ASI2023_487	National Centre for Radio Astrophysics - Tata Institute	Uncovering patchy reionization bias on the detection of primordial gravitational wave signal	Poster

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SAMIT KUMAR PAL	ASI2023_197	INDIAN INSTITUTE OF TECHNOLOGY INDORE	The Effect of Earth's Ionosphere on Epoch Reionization Observations with the radio interferometer	Poster
Margarita Safonova	ASI2023_184	Indian Institute of Astrophysics	Potential gravitational lensing on a cosmic string candidate: observations and modelling	Poster
SAYANTAN GHOSH	ASI2023_620	Indian Institute of Technology Bombay	Characterisation of Tomte Glitches in the Bayesian Framework	Poster
Pratik Thakur	ASI2023_653	Indian Institute of Technology Jodhpur	Quasi-normal Oscillation Modes in Context of Hot Dense Matter	Poster
Debanjan Guha Roy	ASI2023_715	Birla Institute of Technology and Science Pilani, Hyderabad Campus	Quasinormal mode oscillations of a neutron star	Poster
Arpan Krishna Mitra	ASI2023_733	Harish Chandra Research Institute	Wormhole in Analogue Spacetime of Accreting Fluid	Poster
Fazlu Rahman	ASI2023_747	Indian Institute of Astrophysics, Bangalore	Statistical Properties of Galactic Synchrotron Temperature and Polarization Maps	Poster