PROGRAMME SCHEDULE

Astrophysical jets and observational facilities : National perspective

Day 1 - 05th April 2021 : Active Galactic Nuclei (AGNs)/Blazars

09:00-09:10	Welcome address by Director ARIES
09:10-09:15	Inaugural speech by P C Agrawal, TIFR
09:15-10:00	**AI techniques in astronomy & the nature of the compact object in low mass X-ray binaries,** Ajit K. Kembhavi, IUCAA

	Session chair : Brijesh Kumar
10:00-11:00	**Jets from Active Galactic Nuclei** , *K. P. Singh, IISER Mohali*
11:00-11:15	Tea break
11:15-11:45	**Gamma-ray flares from relativistic magnetic reconnection in blazar's jet.** , *Amit Shukla, IIT Indore*
11:45-12:15	**Confirming the presence of supermassive black hole binary in OJ 287 using multi-wavelength observations**, *Lankeshwar Dey, TIFR*
12:15-12:45	**ASTROSAT studies of type-I AGNs,** *G. C. Dewangan, IUCAA*
12:45-13:00	**Kiloparsec-scale radio jets in radio galaxies**, *Dharam Lal, NCRA-TIFR*
13:00-13:15	**Clues regarding the origin of jets in host galaxy morphology**, *Rupjyoti Gogoi, Tezpur University*
13:15-13:30	**AstroSat observation of the HBL 1ES,1959+650 during its October 2017 flaring**, *Zahir Shah, IUCAA*
13:30-14:30	Lunch Break (1hr)
	Session chair : A. Gopakumar
14:30-15:00	**New Spectral Phases of Blazar OJ 287: Exploring a complete spectrum of problems related to Jet and Accretion Physics**, *Pankaj Kushwaha, ARIES*
15:00-15:30	**On the Origin of Relativistic Jets: 2021 & Beyond,** *Vaidehi S. Palia, ARIES*
15:30-15:45	**Young radio sources**, *Dhruba Saikia, IUCAA*
15:45-16:00	**Comparative intra-night optical variability of radio-loud narrow line Seyfert 1 galaxies with and without radio jets**, *Vineet Ojha, ARIES*

16:00-16:15	**Soft X-ray excess observed in a blazar OJ 287**, *Main Pal, Jamia Millia Islamia*
16:15-16:45	Tea Break + Poster Viewing
16:45-17:00	**Interpreting the curved X-ray spectral features in high energy-peaked blazars**, *Pranjupriya Goswami, Tezpur University*
17:00-17:15	**Identification of the farthest ÃŽÂ³-ray detected narrow-line Seyfert 1 galaxy**, *Suvendu Rakshit, ARIES*
17:15-17:30	**Study of precessing Jets in a radio galaxy, J1328+2752, with GMRT and VLBI**, *Sumana Nandi, NCRA-TIFR*
17:30-18:00	Joint Discussion / Poster Viewing

Day 2 - 06th April 2021 : Gamma-ray bursts (GRBs), Supernovae and GW candidates

	Session Chair : Poonam Chandra
09:30-10:30	**Physics of Gamma-Ray Bursts (GRBs) and afterglows**, *Dipankar Bhattacharya, IUCAA*
10:30-11:00	**FRBs and GRBs**, *Shriharsh Tendulkar, TIFR*
11:00-11:15	Tea Break
11:15-11:45	**An overview of the observations and physics of the prompt emission of gamma ray bursts**, *Shabnam Iyyani, IUCAA*
11:45-12:15	**Afterglow Modelling and Energetics of Gamma Ray Bursts**, *Kuntal Misra, ARIES*
12:15-12:45	**sGRBs and GW events**, *K. G. Arun, Chennai Mathematical Institute*
12:45-13:00	**GRB 140102A : Insight into Prompt Spectral Evolution and Early Optical Afterglow Emission**, *Rahul Gupta, ARIES*
13:00-13:15	**Search for the merger ejecta emission from very late time radio observations of short Gamma-Ray Bursts**, *Ankur Ghosh, ARIES*
13:15-13:30	**GRBs-Supernovae coneections**, *Amit Kumar, ARIES*
13:30-14:30	Lunch Break
	Session chair : Nayantara Gupta

14:30-15:00	**GW aspects of sGRBs/lGRBs and SNe**, *V. Bhalerao, IIT Bombay*
15:00-15:30	**Fast Blue Optical Transients - a new class of transients with jets in high density medium**, *A. J. Nayana, Working in Kerala*
15:30-15:45	**Comparison of superluminous supernova PTF10hgi and persistent source of repeating FRB 121102**, *Surajit Mondal, NCRA-TIFR*
15:45-16:00	**Investigating short GRBs with 3.6m DOT**, *Dimple, ARIES*
16:00-16:45	Tea Break + Poster Viewing
16:45-17:00	**Analysis of core-collapse supernovae using Publicly available tools**, *Amar Aryan, ARIES*
17:00-17:15	**Deciphering the asymmetries in interacting SNe**, *Anjasha Gangopadhyay, ARIES*
17:15-18:00	Joint discussion/ Poster Viewing

Day 3 - 07th April 2021 : X-ray binaries/ micro-quasars

	Session Chair : Sudip Bhattacharya
09:30-10:30	**X-ray binaries/micro-quasars**, *R.Misra, IUCAA*
10:30-11:00	**Jets, Outflows and Spectral States of black hole binaries**, *Sandip Chakrabarti, ICSP, Kolkata*
11:00-11:15	Tea Break
11:15-11:45	**Connecting X-ray variability and radio jets in microquasars on a detailed timescale,** *Mayukh Pahari, IIT Hyderabad*
11:45-12:15	**Fast timing with AstroSat and new light on X-ray binaries using the multiwavelength approach**, *Aru Beri, IISER Mohali*
12:15-12:45	**Jets around X-ray binaries,** *Indranil C. , ARIES*
12:45-13:00	**Two temperature advective accretion discs around black holes**, *Shilpa Sarkar, ARIES*
13:00-13:15	**Accretion and Ejection Properties of Short Orbital Period Transient Black Hole Candidates**, *Dipak Debnath, ICSP, Kolkata*
13:15-13:30	**X-ray Properties of Black Hole Candidate XTE J1752-223 during its 2009-10 Outburst**, *Kaushik Chatterjee, ICSP, Kolkata*
13:30-14:30	Lunch Break
	Session chair : S. Naik

14:30-15:00	**Role of pseudo potential in studying black holes and X-ray binaries,** *Santabrata Das, IIT Guwahati*
15:00-15:30	**Astrosat/LAXPC: study of microquasars**, *J. S. Yadav, IIT Kanpur*
15:30-15:45	**The long-term X-ray flux distribution of Cygnus X-1 using RXTE-ASM and MAXI observations**, *Kabita Deka, Tezpur University*
15:45-16:00	**Comprehensive X-ray study on 4U 1957+115 using AstroSat, SWIFT and NuSTAR**, *Sneha Mudambi, CHRIST (Deemed to be university)*
16:00-16:45	Tea Break + Poster Viewing
16:45-17:00	**Inner region of the accretion disk and jet in the Z source GX 17+2 and atoll source 4U 1705-44**, *Malu S, Osmania University*
17:00-17:15	**Rapid transitions of QPOs in Black hole binaries and its association with Jets/accretion ejection phenomena**, *K. Sriram, Osmania University*
17:15-17:30	**Jets, disc-winds and oscillations around Kerr black hole**, *Indu K. Dihingia, IIT Indore*
17:30-18:00	Joint discussion/ Poster Viewing

Day 4 - 08th April 2021 : Existing Indian observational facilities and major results

	Session chair : K. K. Yadav
09:30-10:30	**Observational facilities-1 (GMRT)**, *J. Chengalur, NCRA-TIFR*
10:30-11:10	**Observational facilities-2 (3.6m DOT)**, *R. Sagar, IIA*
11:10-11:30	Tea Break
11:30-12:10	**HCT 2.0m and major results**, *Sahu D. K., IIA*
12:10-12:50	**Observational facilities-4 (ASTROSAT-X Ray)**, *P. C. Agrawal, TIFR (Retd.)*
12:50-13:30	**Observational facilities-5 (ASTROSAT UVIT)**, *S. Tandon, IUCAA*
13:30-14:30	Lunch Break

	Session chair : V. Girish
14:30-15:00	**Observational facilities-6 (Gamma Ray Astronomy with Imaging Atmospheric Cherenkov Telescopes)**, *K. K. Singh, BARC*
15:00-15:30	**Observational facilities-7 (HAGER/PACT)**, *Varsha Chitnis, TIFR*
15:30-16:00	**Indian & International Pulsar Timing Array**, *Bal Chandra Joshi, NCRA-TIFR*
16:00-16:15	Tea Break
16:15-16:45	**Science with 8-10m class telescopes**, *R. Srianand, IUCAA*
16:45-17:15	**Ground- and space-based infrared instrumentation facilities at TIFR**, *D. Ojha, TIFR*
17:15-18:00	Joint discussion/ Poster Viewing

Day 5 - 09th April 2021 : Upcoming observational facilities and future plans

	Session chair : P. Majumdar
09:30-10:10	**TMT International Observatory**, *Ramaprakash, IUCAA*
10:10-10:50	**NLOT Project**, *G. C. Anupama, IIA*
10:50-11:30	**LIGO-India,** Somak Raychaudhury, *IUCAA*
11:30-11:50	Tea break
11:50-12:30	**SKA**, *Yashwant Gupta, NCRA-TIFR*
12:30-13:10	**2.5m PRL Telescope project**, *Abhijit Chkravarti, PRL*
13:10-13:30	**Present status of the upcoming 4m ILMT and science cases**, *Brajesh Kumar, ARIES*
13:30-14:30	Lunch Break
	Session chair : E. Reddy
14:30-15:10	**Future of space-based astronomy in India**, *P. Sreekumar, ISRO*
15:10-15:50	**XPoSAT mission**, *Biswajit Paul, RRI*
15:50-16:30	**INSIST mission**, *A. Subramaniam, IIA*
16:30-16:45	Tea Break

16:45-17:30	**India’s role in TMT Science instrumentation**, Sivarani T., IIA
17:30-18:00	Joint Panel Discussion
	Concluding Remarks by Director ARIES
	Closing of the Workshop