



## Selected Abstracts for Oral and Poster Presentations

| No.                              | Name             | Affiliation                                       | Mode of Presentation | Title of Presentation  |
|----------------------------------|------------------|---|----------------------|--|
| <b>I. Star-forming Filaments</b> |                  |   |                      |  |
| 1                                | Veena V S        | Max Planck Institute for Radio Astronomy, Germany | Oral                 | Star Formation in Extreme Environments: A 200 pc High Velocity Cloud in the Galactic Centre            |
| 2                                | Kshitiz Mallick  | ARIES, Nainital                                   | Oral                 | Exploring High-mass star formation at the junction of filaments in Sh2-112                             |
| 3                                | Jyotirmoy Dey    | IIST, Thiruvananthapuram                          | Oral                 | G18.148--0.283: a case study of the cloud-cloud collisions as a mechanism for high-mass star formation |
| 4                                | Arup Kumar Maity | PRL, Ahmedabad                                    | Oral                 | Origin of Hub-Filament Systems through Cloud-Cloud Collision   |

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|---|----------------------|---|--------|---|
| 5 | Sonu Tabitha Paulson | TIFR, Mumbai                            | Oral   | Investigating the Earliest Stages of High-Mass Star Formation                                   |
| 6 | Arun Seshadri        | IIST, Thiruvananthapuram                | Oral   | Multiwavelength investigation of the star-forming complex G12.79+0.43                           |
| 6 | Saurav Sen           | TIFR, Mumbai                            | Poster | Kinematical study of high-mass star formation in Hub-Filament systems                           |
| 7 | Siddhartha Biswas    | SNBNCBS, Kolkata                        | Poster | Evidence of Global Hierarchical Collapse towards Hub-Filament System Sh2-87                     |
| 8 | Sangeetha K K        | University of Kerala Kariavattom campus | Poster | Multiwavelength Investigation of Star Formation activity towards the Galactic Cloud G13.89-0.47 |
| 9 | Shehu Usman Muhammad | SNBNCBS, Kolkata                        | Poster | Exploring the Dynamics of a Hub-Filament System in the Region G41.194-0.163                     |

## II. Interstellar Mediam and Feedback

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|---|-----------------------|-------------------------|------|--|
| 1 | Mridusmita Buragohain | University of Hyderabad | Oral | Observational search of PAHs footprints using SUBARU/COMICS telescope  |
| 2 | Aayushi Verma         | ARIES, Nainital         | Oral | Exploring Stellar Cluster and Feedback-driven Star Formation in the Galactic Midinfrared Bubble [HKS2019] E70    |
| 3 | Nirupam Roy           | IISc, Bangalore         | Oral | Fire burn, and cauldron bubble: Missing supernova remnants and prospect of detecting them at low radio frequency |
| 4 | Sudeshna Patra        | IISER Tirupati          | Oral | The role of metallicity on the mass-luminosity conversion factor derived from dense gas                          |

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|  | Atul Kumar Singh      | DDU Gorakhpur University            | Poster | Optical and Near IR Spectroscopic study of five Carbon Rich Planetary Nebulae using TANSPEC and TIRSPEC  |
| <b>III. Planet formation and Exoplanets</b>  |                       |                                     |        |  |
| 1  | Swastik Chowbay       | IIA, Bengaluru                      | Oral   | The Search for Planet around LkCa 15 protoplanetary disk   |
| 2  | Parashmoni Kashyap    | NISER, Bhubaneswar                  | Poster | Physics and Chemistry at Planet-forming Scales: The Ringworld Revisited  |
| 3  | Rupam Kundu           | IISER, Berhampur                    | Poster | Physical properties and composition of dust in protostellar envelopes: insights into star and planet formation   |
| 4  | Priyankush Ghosh      | NISER, Bhubaneswar                  | Poster | Unveiling the Atmospheric Secrets of Super-Earth Exoplanets in the JWST Era  |
| 5  | Prathap Rayalacheruvu | NISER, Bhubaneswar                  | Poster | From Protoplanetary Disks to Sun-like Planetary Systems: The Cosmic Tale Unveiled Using C/O and Isotopic Ratios  |
| <b>IV. Star formation at high resolution</b> |                       |                                     |        |  |
| 1  | Sabyasachi Pal        | Midnapore City College, West Bengal | Oral   | Study of possible glycine precursor molecules towards the hot molecular core G10.47+0.03   |
| 2  | Anindya Saha          | IIST, Thiruvananthapuram            | Oral   | Study of fragmentation and multiscale gas dynamics in two protoclusters with ALMA: Deciphering the driving mechanism for high mass star formation – gravity or turbulence. |
| 3  | Mayank Narang         | ASIAA, Taiwan                       | Oral   | Zooming in on protostellar outflows: A Combined JWST and ALMA Study of the very low mass, Class 0 protostar IRAS 16253-2429  |

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| 4  | Naval Kishor Bhadari | PRL, Ahmedabad                      | Oral   | Dynamics of the inner environment of a hub-filament system hosting massive young stellar object W42-MME             |
| 5  | Arijit Manna         | Midnapore City College, West Bengal | Oral   | Detection of phosphorus nitride and other complex organic molecules towards the high-mass protostar IRAS 18089–1732 |
| 6  | Himanshu Tyagi       | TIFR, Mumbai                        | Poster | IPA on the Rocks: JWST Unveils the Building Blocks of Planetary Systems   |
| 7  | Bihan Banerjee       | TIFR, Mumbai                        | Poster | Characterizing the inner protoplanetary disks with JWST MIRI-MRS spectra  |
| 8  | Ariful Hoque         | SNBNCBS, Kokata                     | Poster | HC3N as Outflow Tracer  |
| <b>V. Instrumentation</b>                          |                      |                                     |        |   |
| 1  | Arun Surya           | IIA, Bengaluru                      | Oral   | Design advancement of MOIS : A configurable slit multi-object infrared spectrograph and wide field imager           |
| 2  | Supriyo Ghosh        | University of Hertfordshire, UK     | Oral   | An actively controlled fibre-fed optical spectrograph EXOhSPEC  |
| 3  | Varghese Reji        | TIFR Mumbai                         | Poster | pyTANSPEC-1.0.0: A Major upgrade to TANSPEC pipeline, with the capability to reduce Low-Resolution mode spectra     |
| <b>VI. Pre-main Sequence Stars and Variability</b> |                      |                                     |        |   |
| 1  | Arpan Ghosh          | ARIES, Nainital                     | Oral   | Monitoring of episodically accreting Young Stellar Objects  |

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| 2                            | Shridharan Baskaran | CHRIST (Deemed to be University)            | Oral   | Disentangling the two sub-populations of early Herbig Be stars using VLT/X-shooter spectra                                |
| 3                            | Nidhi Sabu          | CHRIST (Deemed to be University), Bangalore | Oral   | Evaluation of varying mass accretion rate with mass in PMS stars  |
| 4                            | Koshvendra Singh    | TIFR, Mumbai                                | Poster | Accretion Funnel Reconfiguration during an Outburst in a Young Stellar Object: EX Lupi                                    |
| 5                            | Gregory Mathews Ben | IISER, Tirupati                             | Poster | Approaching the End of Protoplanetary Disk Evolution: A Blind Survey of Young Stellar Clusters within the Solar Vicinity. |
| 6                            | Tarak Chand         | ARIES, Nainital                             | Poster | Photometric study of an open cluster Be65   |
| 7                            | Manish Chauhan      | SAC, ISRO, Ahmedabad                        | Poster | YSO jets in Galactic plane: The molecular cloud complexes Vulpecula OB1 and IRDC G53.2                                    |
| 8                            | Rishi C             | ARIES, Nainital                             | Poster | Influence of radiative feedback in Bright-Rimmed Cloud (BRC) 44   |
| <b>VII. Stellar clusters</b> |                     |   |        |   |
| 1                            | Ranjan Kumar        | PRL, Ahmedabad                              | Oral   | An investigation of the formation channels of blue straggler stars in the Galactic globular cluster M68                   |
| 2                            | Harmeen Kaur        | Kumaun University Nainital                  | Oral   | Structural morphology and star formation scenario in young star clusters  |
| 3                            | Renjithmon A A      | MG University, Kerala                       | Poster | GAIA DR3 view on GUM 31   |

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| 4  | Kuldeep Belwal   | ICSP, Kolkata                        | Poster | Photometric and Kinematic Analysis of a Young Open Cluster NGC 2345  |
| 5  | Ranjana Jaiswal  | DDU Gorakhpur University             | Poster | Kinematic and photometric study of NGC 6793 open cluster   |
| 6  | Vikalp Sharma    | Hansraj College, University of Delhi | Poster | Deep Near Infrared Photometric Analysis of Open Cluster Teutsch 76   |
| 7  | Mamta            | ARIES, Nainital                      | Poster | Deep near-infrared imaging of a young embedded star cluster BDS2003-52   |
| 8  | Govind Bhat D    | IISER, Tirupati                      | Poster | The stellar population of $\eta$ and $\chi$ Persei: Cluster properties, membership, and the IMF towards low mass end |
| 9  | Ali Hasan Sheikh | Dept of Physics, Gauhati University  | Poster | A Statistical and Multiwavelength Photometric Analysis of a Young Embedded Star Cluster: IC 1590                     |
| 10 | Arun Roy         | IIA, Bengaluru                       | Poster | Rocket Effect near Young Open Clusters   |

### VIII. Magnetic fields in star-forming regions

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|---|--------------|----------------|------|---|
| 1 | Ekta Sharma  | NAOC, China    | Oral | Magnetic fields towards the youngest starless core using Zeeman effect              |
| 2 | Piyali Saha  | NAOJ, Japan    | Oral | Magnetic Fields in Massive Star-forming Regions (MagMaR) unveiled by ALMA           |
| 3 | Vineet Rawat | PRL, Ahmedabad | Oral | JCMT and TANSPEC view of star-formation at the hub of the massive GMC G148.24+00.41 |

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| 4 | Ram Kesh Yadav                    | NARIT, Thailand                         | Oral   | Witnessing Star Formation in Galactic Bubble and Filamentary Systems  |
| 5 | Omkar Jadhav                      | PRL/IIT Gandhinagar                     | Poster | Galactic `Snake' IRDC G11.11-0.12": New Findings from SOFIA and JWST  |
| 6 | Sandhyarani Panigrahy             | IISER Tirupati                          | Poster | Magnetically regulated massive star-formation in Cep A  |
| 7 | Ujwal Reddy P                     | IISER Tirupati                          | Poster | FAST HINSA Zeeman Observations of PGCC G89.75-2.16  |
| 8 | Rohit Chaudhary                   | IISER Tirupati                          | Poster | Understanding the importance of magnetic fields in the "collect and collapse" model of star formation: a case study towards S104 using JCMT SCUBA2/POL2 |
| 9 | Parike Madhu Krishna/Bingsati Roy | JAIN deemed to be University, Bangalore | Poster | Role of Magnetic Fields in Star Formation - Quantum Mechanics Perspective   |

## V. Extra-galactic star formation

|   |                       |   |        |   |
|---|-----------------------|---|--------|---|
| 1 | Ananta Charan Pradhan | NIT, Rourkela                               | Oral   | Tracing star formation in void and filament galaxies                        |
| 2 | Souvik Manna          | SNBNCBS, Kolkata                            | Oral   | Observation of Radio Continuum Halos of 8 Nearby Large Galaxies using uGMRT |
| 3 | Susmita Barman        | University of Hyderabad                     | Oral   | Effect of high-mass stars on the properties of ISM in N44 of the LMC        |
| 4 | Ujjwal Krishnan       | CHRIST (Deemed to be University), Bangalore | Poster | Secular evolution of galaxies : a star formation perspective                |

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| 5  | Jayanth Rao C           | CHRIST (Deemed to be University), Bangalore             | Poster | Investigating the Impact of Ram Pressure Stripping on Star Formation in NGC 4254       |
| 6  | Payel Nandi             | IIA/IISc, Bengaluru                                     | Poster | Probing Star Formation in AGN-hosting Galaxies: Insights from UVIT Observations        |
| 7  | Nilanjana Nandi         | IISER, Tirupati   | Poster | Dynamical lineage of field ultra-diffuse galaxies                                      |
| 8  | Himanshu Abhay Bhisikar | IIT-Indore  | Poster | Deciphering the young star-forming regions in NGC 4571: A UVIT-SDSS-ALMA study         |
| 9  | B Ananthamoorthy        | Manipal Centre for Natural Sciences, Manipal, Karnataka | Poster | Influence of AGN on the star formation properties in the nearby active galaxy NGC 1566 |
| 10 | Biju Saha               | IISER, Tirupati   | Poster | Identification of lopsided galaxies using Convolutional Neural Network                 |