

IUCAA Refresher Course & Summer School 2024

Date/Time	9:30-10:45	11:00-12:15	14:15-15:30	16:00-17:15
13 May	Introductory Astronomy Raghunathan Srianand	Optical Astronomy Techniques Sowgat Muzahid	General Relativity & Cosmology T. P. Singh	Hands-on: Practical Statistics using Python Prakash Arumugasamy
14 May	Introductory Astronomy (9:15-10:15) Raghunathan Srianand	Optical Astronomy Techniques Sowgat Muzahid	General Relativity & Cosmology T. P. Singh	Hands-on: Practical Statistics using Python Prakash Arumugasamy
15 May	Introductory Astronomy (9:15-10:15) Raghunathan Srianand	General Relativity & Cosmology T. P. Singh	General Relativity & Cosmology T. P. Singh	Hands-on: Practical Statistics using Python Prakash Arumugasamy
16 May	Gravity Naresh Dadhich	Gravity Naresh Dadhich	Galaxies Kanak Saha	Galaxies Kanak Saha
17 May	Stellar Structure & Evolution Anupam Bhardwaj	Stellar Structure & Evolution Anupam Bhardwaj	IUCAA Project: Optical Observatories Raghunathan Srianand	Galaxies with IFU Christian E. Herenz
20 May	Stellar Structure & Evolution Anupam Bhardwaj	Radiative Processes Dipanjan Mukherjee	The Sun Durgesh Tripathi	Galaxies with IFU Christian E. Herenz
21 May	Astronomical Distances Anupam Bhardwaj	Radiative Processes Dipanjan Mukherjee	The Sun Durgesh Tripathi	Hands-on: MUSE data Eshita Banerjee, Sayak Dutta
22 May	Interstellar Medium Rajeshwari Dutta	Radiative Processes Dipanjan Mukherjee	The Sun Durgesh Tripathi	Hands-on: MUSE data Eshita Banerjee, Sayak Dutta
23 May	Interstellar Medium Rajeshwari Dutta	Radiative Processes Dipanjan Mukherjee	The Sun Durgesh Tripathi	IUCAA Project: Aditya-L1 Durgesh Tripathi
24 May	Interstellar Medium Rajeshwari Dutta	Introduction to Gamma-ray Astronomy Vaidehi S. Paliya	Hands-on: PLUTO numerical simulations Dipanjan Mukherjee	Hands-on: PLUTO numerical simulations Dipanjan Mukherjee

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27 May	Radio Astronomy Neeraj Gupta	Radio Astronomy Neeraj Gupta	Hands-on: Radio interferometric imaging Suvas Chaudhary, Partha Deka	Hands-on: Radio interferometric imaging Suvas Chaudhary, Partha Deka
28 May	Structure Formation Aseem Paranjape	Structure Formation Aseem Paranjape	Visit: TLC	Hands-on: Cosmological simulations Saeed Dhawalikar, Premvijay V.
29 May	Structure Formation Aseem Paranjape	Structure Formation Aseem Paranjape	Quantum Clocks Subhadeep De	Hands-on: Cosmological simulations Saeed Dhawalikar, Premvijay V.
30 May	Black Holes Sanjeev Dhurandhar	High Energy Astrophysics Gulab Dewangan	Quantum Clocks Subhadeep De	Visit: PQM & Instrumentation Labs
31 May	Black Holes Sanjeev Dhurandhar	High Energy Astrophysics Gulab Dewangan	Quantum Clocks Subhadeep De	Visit: PQM & Instrumentation Labs
3 June	Fluids & Plasmas Nishant Singh	Fluids & Plasmas Nishant Singh	High Energy Astrophysics Gulab Dewangan	Quantum Clocks Subhadeep De
4 June	Fluids & Plasmas Nishant Singh	JWST, High Redshift Galaxies & Implications Ajit Kembhavi	JWST, High Redshift Galaxies & Implications Ajit Kembhavi	Hands-on: X-ray data Kavita Kumari, Tanuman Ghosh, Swadesh Chand
5 June	Relativistic Jets D. J. Saikia	Artificial Intelligence in Astronomy Ajit Kembhavi	Artificial Intelligence in Astronomy Ajit Kembhavi	Hands-on: X-ray data Kavita Kumari, Tanuman Ghosh, Swadesh Chand
6 June	Relativistic Jets D. J. Saikia	Radio Pulsars Avinash Deshpande	IUCAA Project: Astrosat Gulab Dewangan	Visit: Astrosat SSC
7 June	Relativistic Jets D. J. Saikia	Radio Pulsars Avinash Deshpande	Hands-on: UVIT data Suraj Dhiwar, Pushpak Pandey, Souradeep Bhattacharya	Hands-on: UVIT data Suraj Dhiwar, Pushpak Pandey, Souradeep Bhattacharya

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10 June	Gravitational Lensing Anupreeta & Surhud More	Gravitational Waves Sanjit Mitra	Interferometric gravitational wave detectors Manasadevi P. T.	Interferometric gravitational wave detectors Manasadevi P. T.
11 June	Gravitational Lensing Anupreeta & Surhud More	Gravitational Waves Sanjit Mitra	Hands-on: GW Data Analysis Apratim Ganguly	Hands-on: GW Data Analysis Apratim Ganguly
12 June	Gravitational Lensing Anupreeta & Surhud More	Gravitational Waves Sanjit Mitra	Neutron Stars Debarati Chatterjee	Visit: SciPop
13 June	IUCAA Project: Rubin LSST Surhud More	IUCAA Project: LIGO Sanjit Mitra	Neutron Stars Debarati Chatterjee	Visit: GW Labs
14 June	Presentations by Refresher Course participants			

- Lectures will be conducted in Bhaskara 3 unless otherwise informed.
- Hands-on sessions will be conducted in Seminar Room B3.
- For visits to labs or other buildings, instructors will meet participants outside of Bhaskara 3 and guide them to the respective venue.
- Tea breaks will be during 10:45-11:00 and 15:30-16:00.
- Lunch break will be during 12:15-14:15.