

## Schedule: Online Introductory School on Astronomy

### IISER Mohali

	9:30 - 10:45	11:15 - 12:30	14:00 - 16:00
May 8, 2024	Survey of astronomical phenomena and objects (Jasjeet Singh Bagla)	Coordinate Systems and Time (Jasjeet Singh Bagla)	Hands on: Visibility of sources, rising, setting, etc. (Jasjeet Singh Bagla)
May 9, 2024	Flux, magnitudes, photometry (Kulinder Pal Singh)	Colors, extinction, atmospheric refraction (Kulinder Pal Singh)	Hands on: magnitudes, colors, extinction. Globular clusters with SDSS data (Kulinder Pal Singh and Smriti Mahajan)
May 10, 2024	Gravitation, two body problem, orbits, orbits with gravity and radiation pressure (Jasjeet Singh Bagla)	Gravity beyond point particles, tides, Roche limit, Lagrange points (Jasjeet Singh Bagla)	Hands on: simulating orbits (Jasjeet Singh Bagla)
May 13, 2024	The Solar System (Sandeep Sahijpal)	Planets and minor bodies in the solar system: Formation and evolution (Sandeep Sahijpal)	Hands on: Solar activity, sunspot cycle, Planetary composition (Sandeep Sahijpal)
May 14, 2024	Stars: stellar classification, HR diagram (Smriti Mahajan)	Stars: nuclear fusion (Smriti Mahajan)	Playing with stellar spectra. (Smriti Mahajan)
May 15, 2024	Stellar Evolution and nucleosynthesis (Sandeep Sahijpal)	State of matter, End points of stellar evolution: Novae, Supernovae, White dwarf stars, Neutron stars, Black holes (Sandeep Sahijpal)	Hands on: Nuclear reaction network; expected time scales in different stages (H - He, He - C, C - O, etc.) (Sandeep Sahijpal)
May 16, 2024	Exoplanets, formation of planetary systems (Harvinder Kaur Jassal)	Discovering exo-planets (Harvinder Kaur Jassal)	Hands on: Learning from exoplanets (Harvinder Kaur Jassal)
May 17, 2024	Gravitational Lensing (Jasjeet Singh Bagla)	Gravitational Waves (Kinjalk Lochan)	Hands on: microlensing, estimating chirp mass. (Jasjeet Singh Bagla and Kinjalk Lochan)
May 20, 2024	Galaxies: An overview, dynamics (Mamta Gulati)	Inter-Stellar Medium (Mamta Gulati)	Hands on: Morphological classification, rotation curves, mass estimates (Mamta Gulati)
May 21, 2024	SMBH and Active galactic nuclei (Pankaj Kushwaha)	Newtonian Cosmology (Harvinder Kaur Jassal)	Hands on: accretion power (Pankaj Kushwaha)
May 22, 2024	Distance Measurements (Harvinder Kaur Jassal)	Expansion of the Universe: Observational probes (Harvinder Kaur Jassal)	Hands on: finding redshifts of galaxies from SDSS spectra (Harvinder Kaur Jassal)
May 23, 2024	Distribution of galaxies, large scale structure, clusters of galaxies (Smriti Mahajan)	Thermal history of the Universe (Jasjeet Singh Bagla)	Hands on: cluster mass estimation using velocity dispersion of galaxies. (Jasjeet Singh Bagla)