



ASTRAL-X
X-RAY ASTRONOMY SCHOOL
DECEMBER 1-12, 2025
LA PLATA | ARGENTINA



	Mon, Dec 1	Tue, Dec 2	Wed, Dec 3	Thu, Dec 4	Fri, Dec 5	Sat, Dec 6	Sun, Dec 7	Mon, Dec 8	Tue, Dec 9	Wed, Dec 10	Thu, Dec 11	Fri, Dec 12	ASTRAL-X	
09:00–09:45	Welcome and Orientation (30m)	IXPE 1 (Satellite, Detectors, Applications, Standard Reduction)	Spectral Fitting 2: Continuum & Line Fitting	Spectral Fitting 3: High-Resolution Spectra	IXPE 3 (Advanced Topics - Science Results - <i>NSs/Magnetars</i>)	Computer Session	Free Day		Computer Session	COSPAR innitiatives (30m)	Computer Session	Final Presentations: - Student Project Showcases	09:00–09:45	
9:45-10:30	Introduction to High-Energy Processes (1h)	XRISM 1 (Satellite, Detectors, Applications, Standard Reduction)	NICER 2 (Intermediate topics)	Timing Analysis 2: Intermediate Topics	XRISM 3 (Advanced Topics - Plasma Models - <i>Galaxy Clusters/SNRs</i>)	Computer Session			Multiwavelength astrophysics - Gravitational Waves	Proposal Writing (30m) Scientific Presentations (30m)	Computer Session	Final Presentations: - Student Project Showcases	9:45-10:30	
10:30 - 11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break		Visit to IAR + Asado	Coffee Break	Coffee Break	Coffee Break	Coffee Break	10:30 - 11:00	
11:00-11:45	X-ray astronomy 1: Observations, Space Missions	Timing Analysis 1: General Topics	IXPE 2 (Polarization 2: Measurements)	NuSTAR 3 (Advanced Topics - Science Results - <i>AGNs</i>)	Timing Analysis 3: Advanced Topics	Computer Session			Computer Session	Computer Session	Computer Session	Final Presentations: - Student Project Showcases	11:00-11:45	
11:45-12:30	X-ray astronomy 2: Data Reduction, Event Lists	NuSTAR 2 (Intermediate topics)	Machine Learning 1: ML Techniques in X-ray Data Analysis	Machine Learning 2: ML Techniques in X-ray Data Analysis	Machine Learning 3: ML Techniques in X-ray Data Analysis	Computer Session			Computer Session	Computer Session	Computer Session	Final Presentations: - Student Project Showcases	11:45-12:30	
12.30 - 14.30	Lunch	Lunch	Lunch	Lunch	Lunch	Venue Closes at 14h			Lunch	Lunch	Lunch	Lunch	12.30 - 14.30	
14:30–15:15	HEASARC Databases	Spectral Fitting 1: General Topics + Statistics (1h)	XRISM 2 (intermediate topics)	NICER 3 (Advanced Topics - Science Results - <i>XRBs</i>)	Computer Session				Computer Session	Computer Session	Computer Session	Final Presentations: - Student Project Showcases	14:30–15:15	
15:15–16:00	NUSTAR 1 (Satellite, Detectors, Applications, Standard Reduction)	ESASky - VO (30m)	Computer Session	Computer Session	Computer Session				Very-high energy (spectra and polarization)	Black Hole Theory (Ray-tracing)	Computer Session	Final Presentations: - Student Project Showcases	15:15–16:00	
16:00 - 16:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break				Coffee Break	Coffee Break	Coffee Break	Coffee Break	16:00 - 16:30	
16:30–17:15	NICER 1 (Satellite, Detectors, Applications, Standard Reduction)	Computer Session	Computer Session	Computer Session	Computer Session				Computer Session	Computer Session	Computer Session	Final Presentations: - Student Project Showcases	16:30–17:15	
17:15-18:00	Computer Session / Set-up / Menthors	Computer Session	Computer Session	Computer Session	Computer Session	Planetarium Visit				Computer Session	Computer Session	Computer Session	Final Presentations: - Student Project Showcases	17:15-18:00
18:00-18:45	Computer Session / Set-up / Menthors	Computer Session	Computer Session	Computer Session	Computer Session				Computer Session	Computer Session	Computer Session	Closing Ceremony: - Certificates & Farewell	18:00-18:45	
20:00-22:00	Dinner	Dinner	Dinner	Dinner	Dinner				Dinner	Dinner	Dinner	Dinner	20:00-22:00	