

**Fifth ArAS School of Astrophysics (ArAS SfA-5)**  
**VIRTUAL**  
**October 17-22, 2020**

**Saturday (17 October) Opening Ceremony / XMM-Newton Section**

<b>GMT/UTC</b>	<b>EDT</b>	
11:30-12:00	7:30-8:00	Opening Ceremony (ArAS President, NIARG President, ArAS SfA Director)
12:00-13:00	8:00-9:00	Introduction to Black Hole Systems (Ranjeev Misra)
<b>13:00-13:30</b>	<b>9:00-9:30</b>	<b>Break</b>
13:30-15:00	9:30-11:00	Installation & Demonstration of XMM-Newton data analysis (Sherehan Shehata)
<b>15:00-15:30</b>	<b>11:00-11:30</b>	<b>Break</b>
15:30-17:00	11:30-13:00	Installation & Demonstration of XMM-Newton data analysis (Sherehan Shehata)

## Sunday (18 October) XMM-Newton Section

<b>GMT/UTC</b>	<b>EDT</b>	
12:00-13:00	8:00-9:00	Introduction to AGN spectral and timing analysis (Gulab Dewangan)
13:00-14:00	9:00-10:00	Demonstration of XMM-Newton data analysis (Sherehan Shehata)
<b>14:00-14:30</b>	<b>10:00-10:30</b>	<b>Break</b>
14:30-15:30	10:30-11:30	Demonstration of XMM-Newton data analysis (Sherehan Shehata)
15:30-16:30	11:30-12:30	Introduction to X-ray binaries (Poshak Gandhi)
<b>16:30-17:00</b>	<b>12:30-13:00</b>	<b>Break</b>
17:00-18:00	13:00-14:00	Interaction Question/Answers and Feedback (Ranjeev Misra)

## Monday(19 October) CHANDRA/CIAO Section

GMT/UTC	EDT	
12:00-12:45	8:00-8:45	Introduction to X-ray Astronomy (Jonathan McDowell)
12:45-13:30	8:45-9:30	Introduction to CIAO (Antonella Fruscione)
<b>13:30-14:00</b>	<b>9:30-10:00</b>	<b>Break</b>
14:00-14:45	10:00-10:45	From archive to source detection (Help, Docs, Archive, Repro, Detect) (Nick Lee)
14:45-15:30	10:45-11:30	Point Source Analysis (specextract and srflux) (Antonella Fruscione)
<b>15:30-16:00</b>	<b>11:30-12:00</b>	<b>Break</b>
16:00-16:45	12:00-12:45	The Chandra Source Catalog (Frank Primini)
<b>16:45-17:45</b>	<b>12:45-13:45</b>	<b>Lunch/Dinner</b>
17:45-18:30	13:45-14:30	Introduction to DS9 and Dax (Kenny Glotfelty)
18:30-20:30	14:30-16:30	Start of Hands-on session (Antonella Fruscione and Kenny Glotfelty)

## Tuesday(20 October) CHANDRA/CIAO Section

GMT/UTC	EDT	
12:00-12:45	8:00-8:45	Radial Profile, Combining, Reprojecting, Smoothing (Doug Durke)
12:45-13:30	8:45-9:30	High-Resolution Spectroscopy and the TGCAT (Hans Moritz Gunther)
<b>13:30-14:00</b>	<b>9:30-10:00</b>	<b>Break</b>
14:00-16:30	10:00-12:30	Hands-on session
<b>16:30-17:30</b>	<b>12:30-13:30</b>	<b>Lunch/Dinner</b>
17:30-20:30	13:30-16:30	Hands-on session

## Wednesday(21 October) CHANDRA/CIAO Section

GMT/UTC	EDT	
12:00-12:45	8:00-8:45	Extended Source Analysis with Jupyter notebook (Rodolfo Montez)
12:45-13:30	8:45-9:30	Introduction to Astrostatistics (Vinay Kashyap)
<b>13:30-14:00</b>	<b>9:30-10:00</b>	<b>Break</b>
14:00-14:45	10:00-10:45	Sherpa: the CIAO modeling and fitting application (Aneta Siemiginowska)
14:45-16:30	10:45-12:30	Hands-on session
16:30-17:30	12:30-13:30	Lunch/Dinner
17:30-18:30	13:30-14:30	Hands-on session
18:30-19:30	14:30-15:30	Final Q&A session

## Thursday (22 October) ArAS SfA Section

GMT/UTC	EDT	
13:00-15:00	9:00-11:00	Final Q&A session (ArAS SfA Team)
<b>15:00-15:30</b>	<b>11:00-11:30</b>	<b>Break</b>
15:30-16:30	11:30-12:30	Discussion with students (ArAS SfA Team)
16:30-17:00	12:30-13:00	Closing Ceremony (ArAS SfA Team)

