

Fifth Advanced Arab Astrophysics School (ArAs Adv_5)

Kottamia Astronomical Observatory, Egypt

October 17 -23, 2025

Arrival Friday, Oct. 17, Excursion or Departure Thursday, Oct. 23

Scientific Program

Time		DAY 1 Saturday 18 October	
8:00 - 9:00	Breakfast & Logistics		
9:00- 11:00	Registration		
11:00 – 12:00	Opening Ceremony: <i>Chair: Prof. Hadia Selim</i> Prof. Taha Rabeh - NRIAG President Prof. Ashraf Shaker - Astronomy Department Chair Raid M Suleiman – ArAS SfA Director Prof. Hadia Selim – SSAS Director, ArAs Adv_5 LOC/SOC Chair		
12:00 – 12:30	<i>Coffee Break</i>		
<i>Chair: Prof. Raid M Suleiman</i>			
12:30 – 13:30	Fractional Stars	Prof.	Mohamed Ibrahim Nouh
13:30 - 14:30	Fractional Stars	Prof.	Mohamed Ibrahim Nouh
14:30 – 16:00	<i>Lunch</i>		
<i>Chair: Prof. Raid M Suleiman</i>			
16:00 – 17:00	Space photometric missions	Prof.	Róbert Szabó
17:00 - 18:00	Space photometric missions	Prof.	Róbert Szabó
18:00 – 19:00	Middle East & Africa Space-based Monitoring of Atmospheric-pollution (MEASMA) Project	Prof.	Raid M Soliman
19:00 – 20:00	Dinner		
20:00 – 23:00	Observations using Kottamia telescope	Telescope's Team	

Time		DAY 2 Sunday 19 October	
8:00 – 9:00	Breakfast		
<i>Chair: Prof. Róbert Szabo</i>			
9:30 – 11:00	On some difficulties in classification of dwarf cepheids and delta Scuti stars.		Prof. Mohamed abdElsabour
11:00 – 12:30	The value and applications of Astrostatistics		
12:30 – 13:00	Coffee Break		
13:00 - 14:30	High Energy Stellar Coronal Astrophysics		Prof. Kashyap, Vinay
14:30 – 16:00	Lunch		
<i>Chair: Prof. Vinay L. Kashyap</i>			
16:00 – 17:30	Spectroscopy and pulsation of variable stars		Prof. Katrien kolenberg
17:30 – 19:00	Black Holes from Astrophysical, Cosmological, and Quantum Gravity Aspects		
19:00 – 20:30	Dinner		
20:30 – 23:00	Group Work		

Time		DAY 3 Monday 20 October	
8:00 – 9:00	Breakfast		
<i>Chair: Katrien Kolenberg</i>			
9:30 – 11:00	Spectroscopy and pulsation of variable stars		Prof. Katrien kolenberg:
11:00 – 11:30	Coffee Break		
11:300 – 13:00	Comprehensive Studies of Star Clusters		Prof. Yasser H. Hendy
13:00 – 14:30	Study of Variable Stars in Star Clusters		Prof. Yasser Hendy
14:30 – 16:00	Lunch		
<i>Chair: Prof. Raid M Suleiman</i>			
16:00 – 17:300	Introduction to Variable Stars and the Analysis of Light Curves and Spectra		
	Prof. Abdelmajid BENHIDA		
17:300 – 19:00	Practical Applications with Oukaimeden, Kepler and TESS Data		
	Prof. Abdelmajid BENHIDA		
19:00 – 20:30	Dinner		
20:30 – 23:00	Observations using Kottamia telescope		Telescope's Team

Time		DAY 4 Tuesday 21 October
8:00 – 9:00	Breakfast	
<i>Chair: Prof. Fouad Sefyani</i>		
09:300 – 11:00	From Spectrographs to Spectra: Principles, Design and Atmospheric Modelling Prof. Ahmed Shokry Abouelfetouh	
11:00 – 11:30	<i>Coffee Break</i>	
11:30 – 14:30	From Spectrographs to Spectra: Principles, Design and Atmospheric Modelling Prof. Ahmed Shokry Abouelfetouh	
14:30 - 16:00	<i>Lunch</i>	
<i>Chair: Prof. Abdelmajid Benhida</i>		
16:00 – 17:00	Al-Wardat's Method for Analyzing Stellar Systems: Prof. Mashhoor Al-Wardat	
17:00 – 18:00	Hands-on Workshop: Collecting data from the Hipparcos and Gaia Catalogues for binary and multiple stellar systems. Prof. Mashhoor Al-Wardat	
18:00 – 19:00	Hands-on Workshop: Calculating synthetic photometry from observational and synthetic spectra. Participants should have a basic knowledge of Python. Prof. Mashhoor Al-Wardat	
19:00 – 20:00	<i>Dinner</i>	
20:00 – 23:00	Work Groups	

Time		DAY 5 Wednesday 22 October
8:00 – 9:00	Breakfast	
<i>Chair: Prof. Prof. Mashhoor A. Al-Wardat</i>		
9:00 – 10:30	Detection and chemical analysis of the interstellar medium by spectroscopic analysis	
	Prof. SEFYANI	
10:30 – 11:30	Coffee Break	
11:30 – 12:30	An overview of the Kottamia Astronomical Observatory (KAO): Advancements in instrumentation, international collaboration and future prospects.	
	Dr. Mohamed Ismael.	
12:30 – 14:30	Practical Session : Construction of the linear model in spectroscopic analysis	
	Prof. SEFYANI	
14:30 – 16:00	Lunch	
<i>Chair: Prof. Fouad Sefyani / Prof. Abdelmajid Benhida/ Prof. Raid M Suleiman</i>		
16:00 – 18:00	Poster Session : How to present your results in a scientific paper	
18:00 – 21:00	Closing Ceremony and Dinner	

Thursday 23 October
<i>Excursion or Departure</i>

