

September 3 Sunday

18:00 Ice Breaking Event

September 4 Monday

Introduction and "inspiring day"

9:00 Opening and Welcome Ceremony
10:30 IAU and astronomy for developments/education (Nadeem Oozeer, Saeed Jafari)
11:00 Break
11:30 Importance of radio astronomy (Jack Gallimore)
12:15 Introduction to interferometry (George Bendo)

13:00 Lunch break

15:00 Introduction to VLA (Betsey Adams)
15:20 Introduction to MeerKAT (Nadeem Oozeer, Ianja Roger)
15:40 Introduction to ALMA (Aida Ahmadi, George Bendo)
16:00 Introduction to Very Long Baseline Interferometers (Cristiana Spingola)
16:30 Break
16:45 Introduction to LOFAR/MWA
17:00 Help with software installation
18:00 End of the day

September 5 Tuesday

Softwares and data archives

9:00 Intro to AIPS and data structure (Jack Gallimore)
9:30 Intro to CASA and data structure (Aida Ahmadi)
10:00 Projects overview, assignments (Fatemeh Tabatabaei)
11:00 Break
11:30 VLA data archive (Betsey Adams)
12:00 MeerKat data archive (Nadeem Oozeer, Ianja Roger)
12:30 VLBI data archives (Cristiana Spingola, Jack Gallimore)

13:00 Lunch break

15:00 EHT data archive (Michael Janssen)
15:30 ALMA data archive (Aida Ahmadi)
16:00 Break
16:45 Help with software and download of datasets
18:00 End of the day

September 6 Wednesday

Calibration + Continuum tutorial

9:00 Basics of calibration (George Bendo)

9:45 Basics of imaging and self-calibration (Cristiana Spingola)
10:30 MeerKAT data reduction (Nadeem Oozeer)
11:00 Break
11:30 Low frequency arrays and public surveys (Giulia Macario)
12:00 Science with radio continuum (mm to m, Nadeem Oozeer)
12:30 MeerKAT tutorials

13:00 Lunch break

15:00 MeerKAT tutorials
16:30 Break
16:45 MeerKAT tutorials
18:00 End of the day

September 7 Thursday

HI lectures and tutorial

9:00 Notes on flagging (Betsey Adams)
9:30 Continuum subtraction: lecture + tutorial (Adams, Yildiz, Roger)
11:00 Break
11:30 Masking and cleaning: lecture + tutorial (Adams, Yildiz, Roger)

13:00 Lunch break

15:00 Science with HI (Mustafa Yildiz)
15:30 Moment maps + SoFIA tutorials (Adams, Yildiz, Roger)
16:30 Break
16:45 Moment maps + SoFIA tutorials (Adams, Yildiz, Roger)
18:00 End of the day

September 8 Friday

Very long baseline interferometry

9:00 VLBI and general differences with connected interferometers (Cristiana Spingola)
9:30 VLBI Calibration differences (Jack Galimore)
10:15 VLBI tutorial (Spingola, Gallimore, Janssen)
11:00 Break
11:30 VLBI tutorial (Spingola, Gallimore, Janssen)

13:00 Lunch break

15:00 Science with VLBI: Event Horizon Telescope (Michael Janssen)
15:30 VLBI tutorial (Spingola, Gallimore, Janssen)
16:30 Break
16:45 VLBI tutorial (Spingola, Gallimore, Janssen)
18:00 End of the day

September 9 Saturday

Excursion

September 10 Sunday

Free day

Week 2

September 11 Monday

ALMA lectures and tutorials

9:00 Hands-on calibration of ALMA data (Rosita Paladino)

11:00 Break

11:30 Hands-on calibration of ALMA data (Rosita Paladino)

13:00 Lunch break

15:00 ALMA weblog review (George Bendo)

15:30 Mining the ALMA science archive programmatically (Aida Ahmadi)

16:00 Science talk: Photometry Results from the Bright Extragalactic ALMA Redshift Survey (BEARS)
(George Bendo)

16:30 Break

16:45 CARTA tutorial (Paladino, Bendo, Ahmadi)

18:00 End of the day

September 12 Tuesday

EHT lecture and tutorial + projects

9:00 EHT/mm-VLBI data reduction (Michael Janssen)

10:00 EHT and calibration pipeline tutorial (Michael Janssen)

11:00 Break

11:30 EHT imaging tutorial (Michael Janssen)

13:00 Lunch

15:00 Science talk: AGNs with EHT (Violette Impellizzeri)

15:30 Projects

16:00 Break

16:45 Projects

18:00 End of the day

September 13 Wednesday

ASKAP/radio astronomy in west & central Asia (hybrid) +projects

9:00 ASKAP: design, pipeline, surveys, data access and science highlights (Baerbel Koribalski)

10:15 Radio astronomy in Iran: From ISM to stars, BHs, galaxies and their evolution (Tabatabaei)
11:00 Break
11:30 Radio astronomy in Turkey (Mustafa Yildiz)
12:15 Radio astronomy in Arab World (Awni Moh'd khasawneh)

13:00 Lunch break

15:00 Projects
16:30 Break
16:45 Projects
18:00 End of the day

September 14 Thursday

Science talks + projects

9:00 Radio Frequency Interference-RFI (Nadeem Oozeer)
9:30 Probing Axions via Light Circular Polarization and Event Horizon Telescope (Soroush Shokri)
9:45 Constraining The Kerr Paradigm Through Synchrotron Radiation (Masoumeh Ghasemi-Nodehi)
10:00 MIGHTEE-COSMOS: Thermal and Non-thermal Emission in Distant Star-Forming Galaxies at $1.5 < z < 5$ (Maryam Khademi)
10:15 The environments of hyper-compact H II regions (Aruzhan Omar)
10:30 Radio Recombination Lines As Free-Free Templates in The Galaxy Center (Farideh Mazoochi)
10:45 A Detailed Study of Radio-IR Correlation in The Magellanic Clouds (MJ Shahhoseini)
11:00 Break
11:30 LOFAR LoTSS: Multi-Scale Study of Radio-IR Correlation in Nearby Galaxies (Parvin Howaida)
11:45 Radio Spectral Energy Distribution of Star Forming Galaxies at $z < 1.5$ (Hossein Hatamnia)
12:00 Interstellar medium and star formation in NGC 1316 (Haleh Mesgari)
12:15 Projects

13:00 Lunch break

15:00 Projects
16:30 Break
16:45 Projects
18:00 End of the day

September 15 Friday

Reports and closing

9:00 Project presentations (Students)
11:00 Break
11:30 Closing remarks
13:00 Lunch Break
15:00 Workshop ends