Week 1					

	Start time	Topic	Title	Lecturer	Chair
September 3	**Sunday**				
1:00	18:00	Ice Breaking Event	Ice Breaking Event		
	19:00		End of the day		
September 4	**Monday**	*Introduction and "inspiring day"*	*Title*	*Lecturer*	*Chair*
Duration hh:mm					
1:30	9:00	Welcome Ceremony	Opening and Welcome Ceremony		
0:20	10:30	Overview on the program, structure, goals	About this workshop	Fatemeh Tabatabaei	
0:30	12:00	Words from IAU offices for education	Astronomy education in the region	TBD	
0:30	11:00	Break	Break		
0:30	14:30	Public lecture on radio astronomy	Public Lecture on Radio Astronomy	Nadeem Oozeer	
0:10	10:50	Questions	Questions		
0:30	11:30	Intro 1	Importance of radio astronomy	Jack Galimore	
0:10	15:00	Questions	Questions		
2:00	12:30	Lunch break	Lunch break		
0:30	15:10	Intro 2	Introduction to interferometry	TBD	
0:10	15:40	Questions	Questions		
0:30	15:50	Break	Break		
0:10	16:20	Questions	Questions		
1:30	16:30	Software 1	Help with software installation	ALL	
	18:00	End of the day	End of the day		
	Local time				
September 5	**Tuesday**	*Software, interferometers and data archives*	*Title*	*Lecturer*	*Chair*
0:40	9:00	Intro to interferometers of the workshop	Introduction to interferometers (ALMA, MeerKAT, LOFAR, VLA, VLBA)	ALL	
0:10	9:40	Questions	Questions		
0:20	9:50	Intro software 1	Intro to AIPS and data structure	Jack Galimore	
0:10	10:10	Questions	Questions		
0:20	10:20	Intro software 2	Intro to CASA and data structure	Aida Ahmadi	
0:10	10:40	Questions	Questions		
0:30	10:50	Break	Break		
0:30	11:20	Projects	Projects overview, assignments	TBD	
0:10	11:50	Questions	Questions		
0:30	12:00	Data archives 1 (links and small demo)	HI - data archives	Betsey Adams, Ianja Roger	
0:10	12:30	Questions	Questions		
2:00	12:40	Lunch break	Lunch break		
0:30	14:40	Data archives 2 (links and small demo)	MeerKat archive	Nadeem Oozeer, Giulia Macario	
0:30	15:10	Data archives 3 (links and small demo)	VLBI archives	Cristiana Spingolo, Jack Galimore, Michael Janssen	
0:30	15:40	Break	Break		
0:30	16:10	Data archives 4 (links and demo)	ALMA data archive	Aida Ahmadi, George Bendo	
0:10	16:40	Questions on data archives	Questions		
1:10	16:50	Software 2	Help with software and download of datasets	ALL	
	18:00	End of the day	End of the day		
	Local time				
September 6	**Wednesday**	*Calibration + LOFAR and MeerKat*	*Title*	*Lecturer*	*Chair*

			Title	Lecturer	Chair
0:40	9:00	Calibration 1	Basics of calibration	George Bendo	
0:05	9:40	Questions	Questions		
0:40	9:45	Calibration 2	Basics of imaging and self-cal	Cristiana Spingolo	
0:05	10:25	Questions	Questions		
0:30	10:30	Break	Break		
0:30	11:00	Lecture 1	Intro to MeerKat	Nadeem Oozeer	
0:05	11:30	Questions	Questions		
0:30	11:35	Lecture 2	Intro to low frequency arrays (LOFAR,GMRT,MWA,ASKAP) and public surveys + SKA-Low	Giulia Macario	
0:05	12:05	Questions	Questions		
2:00	12:10	Lunch break	Lunch Break		
0:20	14:10	Scientific talk	Science with radio continuum (MHz to GHz)	Giulia Macario, Nadeem Oozeer	
0:05	14:30	Questions	Questions		
2:00	14:35	Tutorial 1	MeerKat tutorial	Nadeem Oozeer	
0:30	16:35	Break	Break		
0:55	17:05	Tutorial 1	MeerKat tutorial	Giulia Maccario	
	18:00	End of the day	End of the day		
		Local time			
September 7	Thursday	*HI lectures and tutorial*	*Title*	*Lecturer*	*Chair*
0:30	9:00	Lecture 3	Notes on flagging	Betsey Adams	
0:05	9:30	Questions	Questions		
0:20	9:35	Lecture 4	Continuum subtraction (lecture)	Betsey Adams, Mustafa Yildiz, Ianja Roger	
0:05	9:55	Questions	Questions		
1:00	10:00	Tutorial 2	Continuum subtraction (tutorial)	Betsey Adams, Mustafa Yildiz, Ianja Roger	
0:05	11:00	Questions	Questions		
0:30	11:05	Break	Break		
0:20	11:35	Lecture 5	Masking and cleaning (lecture)	Betsey Adams, Mustafa Yildiz, Ianja Roger	
0:05	11:55	Questions	Questions		
1:00	12:00	Tutorial 3	Masking and cleaning (tutorial)	Betsey Adams, Mustafa Yildiz, Ianja Roger	
2:00	13:00	Lunch	Lunch break		
0:20	15:00	Scientific talk	Science with HI	Mustafa Yildiz	
0:05	15:20	Questions	Questions		
0:20	15:25	Lecture 6	Moment maps (lecture)	Betsey Adams, Mustafa Yildiz, Ianja Roger	
0:05	15:45	Questions	Questions		
0:30	15:50	Break	Break		
1:40	16:20	Tutorial 4	Moment maps (tutorial)	Betsey Adams, Mustafa Yildiz, Ianja Roger	
	18:00	End of the day	End of the day		
		Local time			
September 8	Friday	*Very Long Baseline Interferometry*	*Title*	*Lecturer*	*Chair*
0:30	9:00	Lecture 16	VLBI and general differences with the connected interferometers	Cristiana Spingolo, Jack Galimore, Michael Janssen	
0:05	9:30	Questions	Questions		
0:30	9:35	Lecture 17	VLBI calibration differences with other interferometers	Cristiana Spingolo, Jack Galimore, Michael Janssen	
0:05	10:05	Questions	Questions		
0:30	10:10	Tutorial 6	VLBI tutorial	Cristiana Spingolo, Jack Galimore, Michael Janssen	
0:30	10:40	Break	Break		
1:20	11:10	Tutorial 6	VLBI tutorial	Cristiana Spingolo, Jack Galimore, Michael Janssen	
2:00	12:30	Lunch break	Lunch break		
0:20	14:30	Scientific talk	Science with VLBI: Event Horizon Telescope	Michael Janssen	
1:30	14:50	Tutorial 6	VLBI tutorial		

	Start time	Topic	Title	Lecturer	Chair	
0:30	16:20	Break	Break			
	16:50	End of the day	End of the day			
Week 2						
	Start time	*Topic*	*Title*	*Lecturer*	*Chair*	
September 11 **Monday**		*ALMA lectures and tutorials*				
1:30	9:00	Lecture 18	Hands-on calibration of ALMA data	Rosita Paladino		
0:30	10:30	Break				
1:30	11:00	Lecture 18 (continued)	Hands-on calibration of ALMA data	Rosita Paladino		
2:00	12:30	Lunch break				
0:20	14:30	Scientific talk	TBD	Aida Ahmadi		
0:40	14:50	Lecture 19	ALMA Weblog Review	Geroge Bendo		
0:20	15:30	Scientific talk	TBD	Geroge Bendo		
0:30	15:50	Break				
1:30	16:20	Lecture 20	CARTA tutorial	Aida, George, Rosita		
	17:50	End				
September 12 **Tuesday**		*EHT/Advanced analysis/Projects*	*Title*	*Lecturer*	*Chair*	
0:45	9:00	Lecture 21	EHT data reduction	Michael Janssen		
0:10	9:45	Questions	Questions			
0:45	9:55	Tutorial	EHT tutorial	Michael Janssen		
0:10	10:40	Questions	Questions			
0:45	10:50	Break	Break			
0:45	11:35	Tutorial	EHT tutorial	Michael Janssen		
0:10	12:20	Questions	Questions			
2:00	12:30	Lunch break	Lunch break			
0:45	14:30	Advanced analysis tools	Advanced analysis tools			
1:30	14:30	Project splinters	Project splinters			
0:30	16:00	Break	Break			
1:30	16:30	Project splinters	Project splinters			
	18:00	End	End			
September 13 **Wednesday**		*Science Talks/Projects/Creativity*	*Title*	*Lecturer*	*Chair*	
0:45	9:00	Scientific talk	EMU ASKAP Surveys	Baerbel Koribalski		
0:10	9:45	Questions	Questions			
0:45	9:55	Scientific talk	Scientific talk on AGN	Violette Impellizzeri		
0:10	10:40	Questions	Questions			
0:30	10:50	Break	Break			
0:40	11:20	Science talks by lecturers or advanced students	Science talks by lecturers or advanced students	TBD		
0:10	12:00	Questions	Questions			
2:00	12:10	Lunch	Lunch Break			
1:30	14:10	Project splinters	Project splinters			

					Lecturer	Chair	
0:30	15:40	Break	Break				
1:50	16:10	Project splinters	Project splinters				
	18:00	End					
September 14	Thursday	*Science Talks on Radio Astronomy in Central/ West Asia + Projects*	*Title*		*Lecturer*	*Chair*	
0:45	9:00	Radio astronomy in Iran	From ISM to stars, black holes, and galaxy evolution		Fatemeh Tabatabaei		
0:05	9:45	Questions	Questions				
0:45	9:50	Radio astronomy in Turkey	Radio astronomy in Turkey		Mustafa Yildiz		
0:05	10:35	Questions	Questions				
0:30	10:40	Break	Break				
0:45	11:10	Radio astronomy in Arab World	Radio astronomy in Arab World		Awni Moh'd khasawneh		
0:05	11:55	Questions	Questions				
2:00	12:00	Lunch	Lunch Break				
1:30	14:00	Project Splinters	Project Splinters				
0:30	15:30	Break	Break				
2:00	16:00	Project Splinters	Project Splinters				
	18:00	End					
September 15	Friday	*Student reports and closing*	*Title*			*Chair*	
0:45	9:00	Students presentations I	Short reports by students				
0:05	9:45	Questions	Questions				
0:45	9:50	Students presentations II	Short reports by students				
0:05	10:35	Questions	Questions				
0:30	10:40	Break	Break				
0:45	11:10	Students presentations III	Short reports by students				
0:05	11:55	Questions	Questions				
2:00	12:00	Lunch	Lunch Break				
1:30	14:00	Students presentations IV	Short reports by students				
0:30	15:30	Break	Break				
2:00	16:00	Closing Ceremony	Closing Ceremony		SOC/LOC chairs		
	18:00	End					