

NAIC/NRAO School on Single Dish Radio Astronomy Techniques and Applications

Program

Sunday August 10: Optional Introduction

08:30 – 09:45	Breakfast in Cafeteria	
10:00 – 12:00	Introduction to observing at the 40' teaching telescope , Group A*	S. Heatherly
12:00 – 13:30	Lunch in Cafeteria	
12:30 – 14:00	Introduction to observing at the 40' teaching telescope , Group B*	S. Heatherly
13:00 – 17:00	Registration in lobby of the Residence Hall	
<i>Moderator: Jim Braatz</i>		
14:00 - 14:45	A Discussion of the Radio Sky	J. Condon
14:45 – 15:30	An Historical Introduction to Radio Astronomy	F. Ghigo
15:30 – 16:00	Coffee Break	
16:00 – 16:45	The Major Single Dish Radio Telescopes	P. Jewell & C. Salter
16:45 – 17:00	Break	
17:00 – 17:30	History of the Green Bank Observatory	F. J. Lockman
17:30 – 19:00	Reception in Residence Hall Lounge	
17:30 – 19:00	Dinner in Cafeteria	
19:00 – 20:30	Introduction to observing at the 40' teaching telescope, Group C*	S. Heatherly
21:30 – 03:30	Observing at the 40' teaching telescope, Groups 1 through 6*	

Monday August 11: Fundamentals

07:30 – 08:30 **Breakfast**

Moderator: Toney Minter

09:00 – 09:05	Welcome	F. Lo
09:05 – 09:15	School Organization	P. Jewell
09:15 – 10:30	Basic Principles of Single-Dish Radio Telescopes	P. Goldsmith
10:30 – 11:00	Coffee Break (Group photo)	
11:00 – 11:45	Theory of Measurements with Fully– Filled Apertures	C. Salter
11:45 – 12:30	Why Single-Dishes?	D. Emerson
12:30 – 14:00	Lunch Break	

Moderator: Myra Lebron

14:00 – 14:45	The Receiver System – cm regime	R. Norrod
14:45 – 15:05	IF/LO Paths	L. Wray
15:05 – 15:50	Backends	R. Fisher
15:50 – 16:15	Coffee Break	
16:15 – 17:00	Fourier Transforms, Noise, and Correlators	A. Deshpande
17:00 – 19:00	Dinner Break	
19:00 – 02:00	Hands-on projects, Projects 2b, 1– G, 4a, 5-G**	
21:30 – 22:30	Observing at the 40' teaching telescope , Group 7*	

Tuesday August 12: Single-Dish Observing Disciplines and Associated Techniques

05:30 – 08:50 Observing at the 40' teaching telescope , Groups 8 through 10*

07:30 – 08:30 **Breakfast**

Moderator: Dana Balsaer

09:00 – 09:45 Continuum Observing J. Condon

09:45 – 10:30 Spectral-Line 1: General Aspects H. Liszt

10:30 – 11:00 **Coffee Break**

11:00 – 11:45 Advanced Spectral Line Topics A. Wootten

11:45 – 12:30 A Hueristic Introduction to Radioastronomical Polarization C. Heiles

12:30 – 14:00 **Lunch Break**

Moderator: Yuri Kovalev

14:00 – 14:40 Calibration Techniques at Radio Wavelengths K. O'Neil

14:40 – 15:20 Reduction and Analysis Techniques R. Maddalena

15:20 – 15:40 **Coffee Break**

15:40 – 16:30 Short-Spacings Correction from the Single-Dish Perspective S. Stanimirovic

16:30– 17:15 Pulsar Observations J. Cordes

17:30 – 19:00 **Dinner Break**

17:15 – 01:00 Hands-on projects, Projects 2a, 4b, 5-A, 6a, 7**

Wednesday August 13: Special Topics I

Moderator: Avinash Desphande

07:30 – 08:30	Breakfast	
09:00 – 09:45	RFI and How to Deal with it (Both in Hardware & Software)	R. Fisher
09:45 – 10:30	International Spectrum Management	D. Emerson
10:30 – 11:00	Coffee Break	
11:00 – 11:45	Stray Radiation and How to Deal with it	J. Lockman
11:45 – 12:30	Planetary Radar	D. Campbell
12:30 – 14:00	Lunch	

Moderator: Brian Mason

14:00 – 14:45	The Receiver System - mm regime	J. Payne
14:45 – 15:30	Calibration Techniques at Millimeter Wavelengths	P. Jewell
15:30 – 16:00	Coffee Break	
16:00 – 16:45	Bolometers for Millimetre-Wave Astronomy	D. Audley
16:45 – 17:30	Rolling your own Data Reduction Software	R. Fisher
17:30 – 19:00	Dinner Break	
19:00 – 20:30	Panel Discussion: What Can Go Wrong?	C. Salter, R. Maddalena, K. O'Neil, P. Jewell, D. Emerson
19:00 – 01:00	Hands-on projects, Projects 5G, 6b, 8 9**	

Thursday August 14: Hands-On Projects

04:00 – 07:00 Hands-on projects, Project 3**

07:30 – 08:30 **Breakfast**

This day will be primarily spent doing hands-on project data reduction.
Folks in the instrumentation group will spend the day doing hands-on instrumentation projects

12:30 – 14:00 **Lunch Break**

Continue working on hands-on projects

18:00 – 19:00 Invited Talk: Tom Bania, Boston University

19:00 – late **School Banquet**

Friday August 15: Special Topics II

Moderator: Paulo Friere

08:30 – 09:30 **Breakfast**

10:00 – 10:45 Heterodyne Arrays

Mark Heyer

10:45 – 11:45 Panel Discussion on Observing Proposals & Preparation

C. Salter, B. Mason,
C. Bignell, J. Condon

11:45 – 12:30 The Future of Single Dish Radio Astronomy

B. Brown

12:30 – 14:00 **Lunch Break**

14:00 – 15:30 Presentations of Hands-On Projects

15:30 – 16:30 **Farewell Cocktail**

17:30 – 19:00 **Dinner in Cafeteria**

* See the information sheet on the 40' observing projects for more information

** See the observing sheets on the Hands-on Projects for more information