



WOMEN in ASTRONOMY



Training and Skill Development

Priya Hasan

Asst Professor in Physics

Maulana Azad National Urdu University

Hyderabad, India

priya.hasan@gmail.com

IAU:WiA WG



- IAU XXXI, 2021 General Assembly virtual meeting, August 2021, Mamta Pommier (Chair) and Priya Hasan (Co-Chair.)
- Focus on the difficulties (bias, reduced career prospects, leaky pipeline and lacking role models, childcare issues, harassment, discrimination, unfair working conditions) faced by Women in Astronomy, help bridge the gender gap in Astronomy and STEM fields, and help the careers of women researchers and young women Ph.D. students worldwide.
- Training Programs were planned once every 2 months.
- ***Open to all: Men & women....***



Women in Astronomy Working Group

BIMONTHLY VIRTUAL TRAINING PROGRAM SERIES - 1

November 8-12, 2021 | 18h-20h Indian Standard Time (UTC - 5:30 hours)



Registration is open for all the International astronomy community female members and students.

Register @ https://docs.google.com/forms/d/e/1FAIpQLSfVMYC3kGJIhi3EIKUbQcU4q2RYWSjdCz91TV4QOzWitiRjPA/viewform?usp=sf_link

TP1-Essential Skills for Astronomy Research

Coordinator: Priya Hasan (Co-Chair, IAU WiA)



Theme: The aim of this Training program is skill-building and development of women's careers in Astronomy. The 'Essential Skills for Astronomy Research' is a 5-days virtual Workshop with 2 hours/day which will cover topics like Python, Matplotlib, Astropy, and Overleaf that are useful in Astronomy research activities. Tutorials/assignments will be given to the participants for practice sessions. Certificates will be given for participation and/or completion of assignments

Contact email: iauwia2124@gmail.com

IAU Women in Astronomy Working Group

Theme: The aim of this Training program is skill-building and development of women's careers in Astronomy. The 'Essential Skills for Astronomy Research' is a 5-days virtual Workshop with 2 hours/day which will cover topics like Python, Matplotlib, Astropy, and Overleaf that are useful in Astronomy research activities. Tutorials/assignments will be given to the participants for practice sessions.

The sessions will include short (30 min) talks, followed by hands-on sessions (1.5 hr) where participants will work along with the instructors. Tutorial problems will be provided and discussed. A slack channel will be used for interaction.

Schedule TP1

- **8/11/2021:** [Introduction to Python and Jupiter Notebooks](#)- P. Hasan (IAU WiA Co-Chair) & S. Hasan
- **9/11/2021:** [More of Python](#)
- **10/11/2021:** [Plotting with Python: Matplotlib](#)
- **11/11/2021:** [ADS, Overleaf, Latex](#)
- **12/11/2021:** [Astropy](#)
- We shall have our sessions from 8-12 November 2021 from 6-8 pm IST (UTC+5.5)
- Sessions will be on python, astropy, Overleaf, ADS and latex. The sessions will be hands-on and so you will need to have a laptop/desktop at your disposal.



TP1 map

- 203 registrations....global participation



Home



Explore



Shorts



Subscriptions



Library



IAU WiA 2021-2024

18 videos · 90 views · Last updated on Apr 15, 2022



IAU WiA WG

SUBSCRIBED



3



IAU WiA WG

4



IAU Women in Astronomy Working Group Training Program Series-1 Nov2021- Day2 (More on Python)

IAU WiA WG

5



IAU Women in Astronomy Working Group Training Program Series-1 Nov2021- Day3 (Python: Matplotlib)

IAU WiA WG

6



IAU Women in Astronomy Working Group Training Program Series-1 Nov2021- Day4(Archive data overleaf)

IAU WiA WG

7



IAU Women in Astronomy Working Group Training Program Series-2 Jan2022- Day1- The Sun- S. Dominguez

IAU WiA WG

8



IAU Women in Astronomy Working Group Training Program Series-2 Jan2022- Day3- The Sun- S. Dominguez

IAU WiA WG

9



IAU Women in Astronomy Working Group Training Program Series-2 Jan2022- Day5- Topcat2- B. Hasan

Feedback

Yes, Absolutely. Got a chance to work on actual astronomical data on a number of topics. Learned to use softwares like TOPCAT and APT Astrometry Tool.

Yes, it was very usefull for re-learning the basics. Astropy was indeed the best material.

It is very useful for me; I need python in my research work.

It gave me lots of ideas to explore more astronomy project for my upcoming career

Assignments



Given 2 weeks to complete



Slack channel for open discussion and questions



Best participant selected based on assignments



International Astronomical Union
Women in Astronomy Working Group



This is to certify that *Dorcas Dupe Oseni* from
..... *Brazil* has
participated in the International Astronomical Union Training program
series -1 on 'Essential skills for Astronomy Research', November,
8th-12th, 2021 organized by the IAU Women in Astronomy
working group.

Coordinators of the Training Program:

Briga Kasan, Maulana Azad National Urdu University, Hyderabad, India
S.N. Kasan, Maulana Azad National Urdu University, Hyderabad, India

Debra Elmgreen
Debra Elmgreen
(President, IAU)

Mamta Pomier
Mamta Pomier
(Chair IAU W.A. WG)

Briga Kasan
Briga Kasan
(Co-Chair IAU W.A. WG)



International Astronomical Union
Women in Astronomy Working Group



This is to certify that *Wara Chamani* from
..... *Bolivia* has
participated in the International Astronomical Union Training program
series -1 on 'Essential skills for Astronomy Research', November,
8th-12th, 2021 organized by the IAU Women in Astronomy
working group.

Coordinators of the Training Program:

Briga Kasan, Maulana Azad National Urdu University, Hyderabad, India
S.N. Kasan, Maulana Azad National Urdu University, Hyderabad, India

Debra Elmgreen
Debra Elmgreen
(President, IAU)

Mamta Pomier
Mamta Pomier
(Chair IAU W.A. WG)

Briga Kasan
Briga Kasan
(Co-Chair IAU W.A. WG)



International Astronomical Union
Women in Astronomy Working Group



This is to certify that *Gabriela Bárcenas Enriquez* from
..... *Mexico* has
participated in the International Astronomical Union Training program
series -1 on 'Essential skills for Astronomy Research', November,
8th-12th, 2021 organized by the IAU Women in Astronomy
working group.

Coordinators of the Training Program:

Briga Kasan, Maulana Azad National Urdu University, Hyderabad, India
S.N. Kasan, Maulana Azad National Urdu University, Hyderabad, India

Debra Elmgreen
Debra Elmgreen
(President, IAU)

Mamta Pomier
Mamta Pomier
(Chair IAU W.A. WG)

Briga Kasan
Briga Kasan
(Co-Chair IAU W.A. WG)



Women in Astronomy Working Group

BIMONTHLY VIRTUAL TRAINING PROGRAM SERIES - 2



January 10-14, 2022 | 13h30-15h30 Central European Time (UTC + 1 hour)

Registration is open for all the International astronomy community female members and students.

Register @ https://docs.google.com/forms/d/e/1FAIpQLSc5I-3647gWEPuhpYjIj-TgZlhjOZJcKAF0BQnWFHxpxOxvHg/viewform?usp=sf_link

TP2-Essential Skills for Astronomy Research

10th & 12th Jan- The Sun available for everyone: Exploring solar images with a visualization software- Santiago Vargas Dominguez (Colombia)

11th Jan- Twitter for Scientists (why and how to use it)- Arianna Piccialli (Belgium)

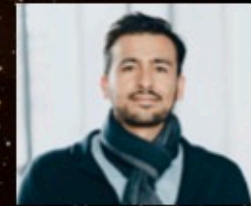
13th & 14th Jan- TOPCAT -Introduction to TopCat and it's application to select Science Cases- Priya Hasan (India)

Coordinator: Mamta Pommier (Chair, IAU WiA)

Theme: The aim of this Training program is skill-building and development of women's careers in Astronomy. The 'Essential Skills for Astronomy Research' is a 5-days virtual Workshop with 2 hours/day. Tutorials/assignments will be given to the participants for practice sessions and certificates will be distributed for the participation and/or completion of assignments.

Contact email: iauwia2124@gmail.com

IAU Women in Astronomy Working Group



TP2

- **1- 10th & 12th Jan- 13h30-15h30 CET: The Sun available for everyone: Exploring solar images with a visualization software- Santiago Vargas Dominguez (Colombia)**
- **2- 11th Jan- 13h30-15h30 CET: Twitter for Scientists (why and how to use it)- Arianna Piccialli (Belgium)**
- **3- 13th & 14th Jan- 13h30-15h30 CET: TOPCAT -Introduction to TopCat and it's application to select Science Cases- Priya Hasan (India)**



Women in Astronomy Working Group



VIRTUAL TRAINING PROGRAM SERIES - 3

April 11-15, 2022 | 14h00-16h00 Indian Standard Time (UTC - 5:30 hours)

Registration is open for all the International astronomy community female members and students.

Program website- <https://sites.google.com/view/iau-women-in-astronomy/home/upcoming-events-and-seminars/training-program-3?authuser=0>

Register @ <https://forms.gle/ZjKRXp7MLgotkMP76>

TP3-FROM ASTRONOMY DATA TO SCIENCE

by Dr. Priya Hasan (Co-chair IAU WiA WG)

11th Apr- 14h-16h IST	Exoplanets: Analysis of Kepler Data
12th Apr- 14h-16h IST	Photometry: Cluster using SDSS Data
13th Apr- 14h-16h IST	Color-Magnitude Diagrams of clusters: SDSS/Gaia
14th Apr- 14h-16h IST	Dark Matter: Estimation of Dark Matter using Gravitational Lensing
15th Apr- 14h-16h IST	AGN: Classifications of AGN using SDSS spectra

Coordinator: Mamta Pommier (Chair, IAU WiA)

Theme: The aim of this Training program is skill-building and development of women's careers in Astronomy. Tutorials/assignments will be given to the participants for practice sessions. Certificates will be given for participation and/or completion of assignments.

Contact email: iauwia2124@gmail.com
IAU Women in Astronomy Working Group



TP3: FROM ASTRONOMY DATA TO SCIENCE

Opening remark and introduction- M. Pommier (IAU WiA Chair),

Program Coordinator
Priya Hasan (Co-Chair
IAU WiA WG)

11th Apr- 14h-16h IST:
Exoplanets: Analysis of
Kepler Data

12th Apr- 14h-16h IST:
Photometry: Cluster
using SDSS Data

13th Apr- 14h-16h IST:
Color-Magnitude
Diagrams of clusters:
SDSS/Gaia

14th Apr- 14h-16h IST:
Dark Matter: Estimation
of Dark Matter using
Gravitational Lensing

15th Apr- 14h-16h IST:
AGN: Classifications of
AGN using SDSS spectra



Wishlist

- More mentors to provide training programs
- Cover a larger range of topics and wavelengths
- Active participation
- Any suggestions?

Thanks