

DEEPTHI S. PRABHU

Postdoctoral Researcher
Indian Institute of Astrophysics, Bengaluru, India.

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EDUCATION

Ph.D. in Astrophysics • Indian Institute of Astrophysics, Bengaluru Jan. 2018 – July 2023

Thesis Title: *Multi-Wavelength Study of Hot Stellar Populations in Galactic Globular Clusters*

Advisor: Prof. Annapurni Subramaniam

Thesis Submitted; Awaiting Defense.

M.Sc. in Physics • Cochin University of Science & Tech., Kochi June 2014 – May 2016

CGPA: 7.68/10

B.Sc. in Applied Physics • University of Calicut, Malappuram June 2011 – May 2014

CGPA: 3.94/4

PROFESSIONAL APPOINTMENTS

Postdoctoral Researcher – Indian Institute of Astrophysics, Bengaluru Aug. 2023 – Present

Research Fellow – Indian Institute of Astrophysics, Bengaluru Jan. 2018 – July 2023

Junior Research Fellow – Radio Astronomy Centre, Ooty June 2016 – Apr. 2017

SCHOLARSHIPS & AWARDS

Senior Research Fellowship – awarded by IIA 2020 – 2023

Junior Research Fellowship – awarded by IIA 2018 – 2020

Qualified for CSIR Fellowship – CSIR/UGC-NET/JRF exam Dec. 2017

Topper Award for B.Sc. Applied Physics – awarded by University of Calicut Feb. 2015

Summer Research Fellowship – awarded by Indian Academy of Sciences 2014

TECHNICAL SKILLS

Languages: Python (astropy, numpy, scipy, matplotlib), C, LaTeX

Softwares: IRAF (Aperture & PSF photometry), CCDLAB (UVIT data reduction), TOPCAT, Aladin, DS9

SUCCESSFUL OBSERVING PROPOSALS

As PI:

1. **AstroSat Cycle A11** – Instrument: UVIT Alloted Time: **25 ks**
Tracing the FUV variability of spotted horizontal branch stars & other variables in the globular cluster NGC 2808

2. **AstroSat Cycle A13** – Instrument: UVIT Alloted Time: **80 ks**
Omega Centauri Survey (AstrOCenS)

As Co-I:

1. **AstroSat Cycle A11** – Instrument: UVIT Alloted Time: **54 ks**
Globular cluster UVIT Legacy Survey (GlobULeS): UVIT+HST+Ground Treasury

PROFESSIONAL PRESENTATIONS

* indicates online presentation

Invited Talks:

- Weekly Colloquium – SAAO, Cape Town** Jan. 2024
Galactic Globular Clusters through the Ultraviolet Eyes of AstroSat/UVIT
- Stellar Populations Group Meeting* – STScI, USA** Feb. 2023
AstroSat/UVIT view of hot stellar populations in Galactic globular clusters
- Celebration of 7 years of AstroSat* – ISRO, Bengaluru** Sept. 2022
Peculiar hot stars in the most massive Galactic GC Omega Centauri as revealed by UVIT
- Seminar – INAF-OAPd, Italy** Sept. 2022
AstroSat/UVIT view of hot stellar populations in massive Galactic globular clusters
- IIA Foundation Day Symposium – IIA, Bengaluru** Apr. 2022
AstroSat/UVIT view of the most massive Galactic globular cluster Omega Centauri

Contributed Talks:

- ASI 2023 – IIT, Indore** Mar. 2023
Far-ultraviolet investigation of the nearby globular cluster NGC 6397 using AstroSat/UVIT
- COSPAR 2022: 44th Scientific Assembly – Athens, Greece** July 2022
Massive Galactic globular clusters through the ultraviolet eyes of AstroSat/UVIT
- NUVA eMeeting 2021*** Oct. 2021
A census of UV-bright stars in the dense globular cluster NGC 2808' using UVIT-HST-GAIA
- UVIT: 5 years of Operation*** Dec. 2020
The first extensive exploration of UV-bright stars in the globular cluster NGC 2808
- MODEST 20 – TIFR, Mumbai** Feb. 2020
The first extensive exploration of UV-bright stars in the globular cluster NGC 2808

STUDENT MENTORING

1. **Ms. Anjali Bhasu** (University of Calicut). MSc Thesis. Aug. 2021 - Jun. 2022
Exploration of exotic blue straggler stars in the globular cluster NGC 2808
2. **Ms. Divyasree Nair** (Govt. College Kasaragod). IAS Summer project. Oct. 2020 - Feb. 2021
Analysis of UV-bright stars in the globular cluster NGC 6254

LEADERSHIP ROLE/PUBLIC OUTREACH

- **Organizer**, weekly group meeting for arXiv discussion at IIA.
- **Co-Founder and Life Member** of *United Science Foundation*, a national-level society for science outreach in India – co-organized workshops, webinars, competitions etc. for students.

- **Resource person**, *Online Workshop on UV Astronomy*, organized jointly by MG University, Kottayam and IUCAA, Pune, Dec. 2020.
- **Volunteer**, *IAU-sponsored Teachers Training Program* at Govt. Higher Primary School, Baichapura, Bangalore; July, 2019.
- **Resource person**, *Radio Astronomy Winter School 2016*, held at NCRA, Pune; Dec. 2015.
- **Resource person**, *Pulsar Observatory for Students 2016*, organized at Radio Astronomy Centre, Ooty, India.

REFERENCES

Prof. Annapurni Subramaniam ([PhD Supervisor](#))

Senior Professor & Director, Indian Institute of Astrophysics, Bengaluru

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Dr. Emanuele Dalessandro

National Institute for Astrophysics - INAF/OAS, Bologna, Italy

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Dr. Patrick Côté

Principal Research Officer, NRC-Herzberg; Adjunct Associate Prof., Uni. of Victoria, Canada

✉ Patrick.Cote@nrc-cnrc.gc.ca