




Niranjana P

✉ niranjanapbhasri@gmail.com  Niranjana P

EDUCATION

2023 – 2025 Banglore	M.Sc <i>Christ University</i> Majors in Physics
2019 – 2022 Ujire, India	B.Sc <i>Shri Dahrmasthala Manjunatheshwara College (Autonomous), Ujire</i> Physics, Chemistry, Mathematics - 8.84/10 GPA
2017 – 2019 shivamogga, India	Pre - University <i>DVS Indp Pu college</i> Physics, Chemistry, Mathematics, Statistics - 86.8%

PROJECTS

Dec 2023 – present	Investigating UV Excess in Elliptical Galaxies: The Role of Enhanced-He Globular Clusters Under the guidance of Dr. Sreeja S Kartha , In collaboration with Akhil Krishna , PhD scholar, Christ University. <ul style="list-style-type: none">Investigating the contribution of globular cluster (GC) populations to the UV upturn phenomenon in elliptical galaxies by constructing composite SED models based on GC metallicity and helium enrichment distributions. And compared theoretical and observed flux contributions using SSP models to understand GC impact on UV emission in upturned galaxies.
Aug 2023 – present	Identification of Herbig Ae/Be Stars in LMC from previously identified Hot Emission Line stars Under the guidance of Dr. Blesson Mathew , led by Dhatri Dongre , 1st year M.Sc., Christ University. <ul style="list-style-type: none">Identified Herbig Ae/Be candidates from previously identified Be/ Classical Be emission line stars using IR excess. Calculated mass accretion rates, estimated mass, and ages for the shortlisted candidates.
May 2024 – Jul 2024	Spectral and Membership Study of the Variable Star MisV1147/V730 Cep <i>Summer internship at Indian Institute of astrophysics (IIA)</i> Worked under Dr. U S Kamath at IIA as Indian Academy of Science summer research fellow. <ul style="list-style-type: none">Conducted multi-epoch spectral data (Optical and NIR) reduction and analysis of the T Tauri star MisV1147 using IRAF, alongside variability analysis to explore its quasi-periodic behavior. Additionally, assessed nearby cluster membership to determine possible affiliations
Sep 2020 – Oct 2020	Statistical study of sunspots and coronal holes, and total solar irradiance  <i>Internship at Society for space Education Research and Development</i> Link of the internship report can be found here  .

SKILLS

Python (Intermediate in Data analysis) | **IRAF** | **CIGALE** | **GALFIT** | **TOPCAT** | **MS Excel** (Data Handling) | **MATLAB** (Basics) | **MS Power Point** (Presentation) | **Research** | **Analysis and Reporting**

PUBLICATIONS

- Akhil, Krishna R., Sreeja S. Kartha, Namitha Kizhuprakkat, K. Ujjwal, and **Niranjana P.** "Deciphering the properties of UV upturn galaxies in the Virgo cluster." (2024) Monthly Notices of the Royal Astronomical Society
- Niranjana P.**, Sreeja S. Kartha, Akhil, Krishna R, (*In prep*). "**Modeling UV Flux Contributions of Globular Cluster Populations in UV-Upturned Galaxies**"

I am leading this work studying Globular Cluster contribution for UV Flux through theoretical SED generation and fitting with observed data. This work is in the stage of drawing conclusions from obtained SEDs.

• **Niranjana P, U S Kamath**, (*In prep*). "Unveiling the Nature of V730 Cep: A Lone Classical T Tauri Star"

I have performed spectroscopic data reduction and analysis, variability analysis and cluster membership analysis of star V730 Cep using various multi-epoch data to understand its variable nature.

ORGANIZATIONS

Jun 2023 – Jul 2023
Bengaluru, India

Naxatra Sciences

Research and Teaching intern

Helped develop content for STEM classes for students of class 6th to 10th. Designed hands on experiments and activities in various area of science also helped develop small Arduino projects. Contributed to astronomy and astrophysics content development for UG level Workshop.

Society for Space Education Research and Development (SSERD)

Educator

- Worked as an educator for the Outreach program, where I was able to talk about Stellar evolution, black holes, and rocket science. The link to the Video can be found here. [↗](#)
- Worked as astrophysics instructor in a program called **Astro-space camp** in 2022 and 2023

Spectra Association, Department of Physics.

Event Manager.

Served as Event Manager of Spectra Association, Sub body of Dpt. of Physics SDM College Ujire, organizing several competitions and one inter class and inter collegiate level fest

CERTIFICATES

Workshop on Astrophysics [↗](#)

Conducted by Edufabrika in association with IISC

Data Visualization in Astronomy Research [↗](#)

Conducted by Spartificial

"Machine learning to Deep Learning: A journey for remote sensing data classification" [↗](#)

Conducted by IIRS ISRO

Data Analysis with Python

Coursera

EXTRA-CURRICULAR ACTIVITIES

- Conducted University and college level workshop on **"Python for Math's"**
- Secured **1st prize** in university level paper presentation competition conducted at Mahaveera college.
- Gave a talk as resource person at MGM College Mysore and Mangalore government college Car street on topic **Application of mathematics in 3D animation** using vectors, complex numbers, and quaternions as part of student exchange program from Dpt. of Mathematics.
- Had attended several workshops like fabrication of working models using Arduino Uno, home automation, etc. conducted by physics department, SDM college Ujire.
- Had participated several intercollegiate science and cultural fests and won prizes.
- I have been practicing Carnatic classical singing from past 5 years.

REFERENCES

Dr. Sreeja Kartha, Assistant Professor, Dpt of Physics and Electronics, Christ (Deemed to be University)
sreeja.kartha@christuniversity.in

Dr. Blesson Mathew, Associate professor, Dpt of Physics & Electronics, Christ (Deemed to be University)
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DECLARATION

I hereby declare that all the details provided above are true to the best of my knowledge.

Niranjana P