Rama Subramanian V

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INTEREST

My primary research interest is in understanding the planetary surface processes. I am always eager to implement new scientific ideas in numerical modelling of planetary surface and leveraging my technical skills to solve the associated challenges. I aim to make the most of the opportunity to contribute to groundbreaking research and further develop my expertise in Planetary Science.

RESEARCH EXPERIENCE

• Physical Research Laboratory [1]

Iune 2024 - Present

Research Intern

Ahmedabad, India

o Prof. S Vijayan

• Evidence for ice transport and loss in Moon Permanently shadowed region by impacts

• Physical Research Laboratory [1]

March 2024 - Present Ahmedabad, India

Research Intern

Prof. S Vijayan

Chandrayaan-3 landing site evolution by South Pole-Aitken basin and other impact craters

Indian Institute of Astrophysics [1]

Jan 2023 - June 2023 Bangalore, India

Master Thesis

o Prof. G. C. Anupama and Prof. D. K. Sahu

• Probing The Optical Nature of Type Iax Supernovae

• Amrita Vishwa Vidyapeetham [1]

Jan 2022 - May 2022 Coimbatore, India

Mini - Project

o Dr. M. Dharani

Astrometric Analysis of M67 & M4 Clusters using GAIA EDR3

EDUCATION

• PG Diploma Course in Space and Atmospheric Science

Sep 2023 - May 2024

Physical Research Laboratory

Amrita Vishwa Vidyapeetham

Ahmedabad, India

· Affiliated to the United Nations: Center for Space Science and Technology Education in Asia and the Pacific

o CGPA: 8.775 / 10

M.Sc Physics

Aug 2021 - Aug 2023

Coimbatore, India

o CGPA: 7.25 / 10

• B.Sc Physics

July 2018 - Apr 2021

Guru Nanak College o CGPA: 8.87 / 10 Chennai, India

 Higher Secondary School Modern Senior Secondary School June 2016 - Apr 2018

Chennai, India

o CGPA: 8.74 / 10

PUBLICATIONS

P=PUBLICATION, A=ACCEPTED, U=UNDER-REVISION

- [P] S. Vijayan, K.B. Kimi, Anil Chavan, R. Aditi, U. Thahira, V. Rama Subramanian, Rishitosh K. Sinha, Amitabh, Santosh Vadawale, M. Shanmugam, N.P.S. Mithun, Arpit R. Patel, S. Amit Basu, K.V. Iyer, K. Suresh, Ajay Prashar, G. Rima, Anil Bhardwaj. Chandrayaan-3 landing site evolution by South Pole-Aitken basin and other impact craters, Icarus, 425 (Sep. 2024), p.116329. doi: 10.1016/j.icarus.2024.116329.
- [P] A. Joshi, M. Catelan, S. Scaringi, A. Schwope, G.C. Anupama, N. Rawat, D.K. Sahu, M. Singh, R. Dastidar, R. Venkata Subramanian, S.M. Rao. Unveiling the nature of two dwarf novae: CRTS J080846.2+313106 and **V416 Dra**, Astronomy and Astrophysics, 689 A158 (Sep. 2024), p 12. doi: 10.1051/0004-6361/202348307.
- [P] Mridweeka Singh; Devendra K. Sahu; Barnabas Barna; Anjasha Gangopadhyay; Raya Dastidar; Rishabh Singh Teja; Kuntal Misra; D. Andrew Howell; Xiaofeng Wang; Jun Mo; Shengyu Yan; Daichi Hiramatsu; Craig Pellegrino; G. C. Anupama; Arti Joshi; K. Azalee Bostroem; Jamison Burke; Curtis McCully; Rama Subramanian V; Gaici Li; Gaobo Xi; Xin Li; Zhitong Li; Shubham Srivastav; Hyobin Im; Anirban Dutta. SN 2020udy: A New Piece of the Homogeneous Bright Group in the Diverse Iax Subclass, The Astrophysical Journal, 965.1 (Apr. 2024), p. 73. doi: 10.3847/1538-4357/ad2618.

UNDER PREPARATION

[1] Vijayan S., **Rama Subramanian V**, Harish., Nehavarthini M, Kimi K.B., Thahira U, Aditi R, Rishav Sahoo, et al. **Evidence for ice transport and loss in Moon Permanently shadowed region by impacts**.

SKILLS

- Programming: Python (NumPy, SciPy, Astropy, GeoPandas, GDAL, Matplotlib)
- Operating Systems: Windows, Linux
- Numerical Simulation Tools: iSALE-2D, TOPCAT
- Miscellaneous: GitHub, LATEX, Blogging

MEDIA/ PRESS RELEASE

- Chandrayaan-3: Pragyan rover discovers ancient 160-km-wide crater on the Moon Surface [1] 22nd September 2024 Media Channel
 - The Hindu , India Today , Times Now , Hindustan Times , REPUBLIC

HONORS AND AWARDS

• International Astronomical Search Collaboration Participation in the analysis of near-Earth objects from Pan-STARRS	2021
Observational Astronomy and Equipment SPACE India	2021
• MATLAB Onramp MathWorks - Training services	2021
• PCAP: Programming Essentials in Python Cisco Networking Academy: self-paced course	2021
• International Astronomy Astrophysics Competition Silver Honour Award	2020

SEMINARS

- ISRO-Structured Training Program on "Sun-Planet Interactions: A Space Weather Perspective" 25th 29th Sep 2023 Physical Research Laboratory Ahmedabad, India
 - **Topics on**: solar variability, space weather, planetary atmospheres, ionospheres, and magnetosphere and introduces important aspects of instrumentation and modelling techniques to investigate Sun-Planet interactions.

EXTRACURRICULAR ACTIVITY

• Stargazing Perseid Meteor Shower

Aug 2021

SPACE Chennai

Yelagiri, India

- Astrophotography, Mapping Constellation.
- Astronomy Computational Workshop

Jan 2020

SHAASTRA, Indian Institute of Technology Madras

Chennai, India

 \circ Introduction to FITS images and SAOImage DS9, celestial coordinate system, Luminosity and HR Diagram.

LANGUAGES

English (Professional proficiency), **Tamil** (Native proficiency), **Hindi** (Limited Working Proficiency), **Malayalam** (Limited Working Proficiency)