# Nitesh Kumar

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## **Education**

Ph.D., University of Delhi, Delhi in Astronomy and Astrophysics (in progress\*). Thesis Title: Automated Analysis of Photometric and Spectroscopic Astronomical Data

M.Sc. Physics, Hansraj College, University of Delhi, Delhi. Secured 64.20%.

B.Sc.(H) Physics, Deshbandhu College, University of Delhi, Delhi. Secured 80.02%.

Intermediate (12<sup>th</sup>, Science), Bharat Ji Saraswati Inter College, Aonla, Bareilly, Uttar Pradesh, 243301.

Secured 81.6%.

High School (10<sup>th</sup>, Science), Bharat Ji Saraswati Inter College, Aonla, Bareilly, Uttar Pradesh, 243301.

Secured 81%.

## **Research Publications**

#### **Journal Articles**

Nitesh Kumar, A. Bhardwaj, H. P. Singh, et al., "Predicting light curves of RR Lyrae variables using artificial neural network based interpolation of a grid of pulsation models," Monthly Notices of the Royal Astronomical Society (IF: 5.5), vol. 522, no. 1, pp. 1504–1520, Mar. 2023, ISSN: 0035-8711. ODI: 10.1093/mnras/stad937.

#### Skills

Languages Proficient in reading, writing, and speaking **English** and **Hindi**.

Coding Experienced in **Python**, **AI/ML**, **Java**, **C**, **C**++, **IDL**, and **SQL**.

Web Development Skilled in HTML, CSS, and JAVASCRIPT.

Miscellaneous Proficient in academic research, teaching, training, consultation, and LaTeX type-setting and publishing.

# **National Level Exams**

2018 CSIR JRF/NET, Cleared CSIR JRF(NET) - Physical Sciences of DECEMBER 2018.

**CSIR JRF/NET**, Cleared CSIR JRF(NET) - Physical Sciences of JUNE 2018.

**GATE PHYSICS**, Cleared GATE PHYSICS 2018.

# **Workshop and Conferences**

- IFAS 7, Participated in the Indo-French Astronomy School (IFAS) on Spectroscopy and Spectrographs, hosted at The Inter-University Center for Astronomy and Astrophysics, Pune, from November 21 to 27, 2022.
  - YAM 2022, Gave a presentation titled "Application of Artificial Neural Networks in Generating RR Lyrae Light Curves" at the *Young Astronomers' Meet*, held at Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital, from November 9 to 13, 2022.
  - International Staff Week 2022, Attended the International Staff Week with the theme "Internationalization in the New Era" organized by WSB University, Dąbrowa Górnicza, Poland, from May 16 to 20, 2022.
  - **EAS 2022**, Participated in the European Astronomical Society Annual Meeting from June 27 to July 1, 2022.
  - FDP WORKSHOP, Engaged in the One-week Faculty Development Program "Recent Trends and Challenges in Intelligent Systems and Machines (RTCISM)" organized by Amity School of Engineering & Technology (ASET), Amity University Patna, from July 25 to 29, 2022.
- **Code/Astro**, Completed a 40-hour course on Python-based software development for astronomers, covering software development paradigms and environments, version control, testing, documentation, packaging, and profiling.
  - ASI 2021, Participated and presented a poster titled "Spectral Interpolation using Artificial Neural Networks (ANN)" at the 39th Annual Meeting of the Astronomical Society of India (ASI), a virtual meeting hosted jointly by ICTS TIFR Bengaluru, IISER Mohali, IIT Indore, and IUCAA Pune from February 18 to 23, 2021 (https://astron-soc.in/asi2021/abstract\_details/ASI2021\_66).
- IFAS 6, Participated in the 6th Indo-French Astronomy School Treasures in the Voxels, held online by the Centre de Recherche Astrophysique de Lyon from July 9 to 17, 2020.

## **Invited Talks**

Delivered an introductory lecture on Astronomy at Government Degree College, Budaun, Uttar Pradesh.

## Miscellaneous

- Reviewed a manuscript for The Astronomical Journal (AAS) international journal (IF: 5.491).
- Served as a subject matter expert in the assessment of the translation of first-year engineering SWAYAM courses (Quantum Mechanics I) into regional languages (Hindi).
- Project Developed the website https://ann-interpolator.web.app/ for a specific project.

# References

Available on Request