

Nitesh Kumar

✉ niteshchandra039@gmail.com 🐦 [@astro_nitesh](https://twitter.com/astro_nitesh)
☎ +918742930496
🌐 astro_nitesh
🌐 <http://niteshchandra039.github.io/>



Education

- 2024 ◇ **Ph.D., University of Delhi, Delhi** in Astronomy and Astrophysics (in progress*).
Thesis Title: *Automated Analysis of Stellar Photometric and Spectroscopic Astronomical Data*
- 2018 ◇ **M.Sc. Physics, Hansraj College, University of Delhi, Delhi.**
Secured 64.20%.
- 2015 ◇ **B.Sc.(H) Physics, Deshbandhu College, University of Delhi, Delhi.**
Secured 80.02%.
- 2012 ◇ **Intermediate (12th, Science), Bharat Ji Saraswati Inter College, Aonla, Bareilly, Uttar Pradesh, 243301 .**
Secured 81.6%.
- 2010 ◇ **High School (10th, Science), Bharat Ji Saraswati Inter College, Aonla, Bareilly, Uttar Pradesh, 243301 .**
Secured 81%.

Research Publications

Journal Articles

- 1 **Nitesh Kumar**, A. Bhardwaj, H. P. Singh, M. Rejkuba, M. Marconi, and P. Prugniel, “Multiwavelength photometric study of RR lyrae variables in the globular cluster NGC 5272 (Messier 3),” *Monthly Notices of the Royal Astronomical Society*, vol. 531, no. 3, pp. 2976–2997, May 2024, ISSN: 0035-8711. 📄 DOI: [10.1093/mnras/stae1334](https://doi.org/10.1093/mnras/stae1334).
- 2 **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*, vol. 522, no. 1, pp. 1504–1520, Mar. 2023, ISSN: 0035-8711. 📄 DOI: [10.1093/mnras/stad937](https://doi.org/10.1093/mnras/stad937).

Skills

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| Languages | ◇ Proficient in reading, writing, and speaking English and Hindi . |
| Coding | ◇ Experienced in Python , AI/ML , Java , C , C++ , IDL , and SQL/ADQL . |
| Web Development | ◇ Skilled in HTML , CSS , and JAVAScript . |
| Code Deployment | ◇ Experienced in Git and Github . |
| Cloud Computing | ◇ Experienced in using Pegasus , a High Performance Computing cluster of IUCAA . |
| Miscellaneous | ◇ Proficient in academic research, teaching, training, consultation, and LaTeX typesetting 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

- 2023 ♦ **Pedagogic Workshop on Astronomy, Astrophysics and Cosmology**, organised by St. Stephen's College College, University of Delhi, Delhi from 6 to 10 November 2023.

 ♦ **Workshop on Stellar and Dynamical Evolution**, organised by Miranda House College, University of Delhi, Delhi from 3 to 5 October 2023.
- 2022 ♦ **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 Aryabhata 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.
- 2021 ♦ **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).
- 2020 ♦ **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

2023 ◇ Delivered an introductory lecture on Astronomy at Government Degree College, Budaun, Uttar Pradesh, India.

Miscellaneous

- 2023 ◇ Reviewed manuscript for The Astronomical Journal (AAS) international journal (IF: 5.491).
- 2022 ◇ 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

Prof. Harinder P. Singh

Senior Professor
Department of Physics and Astrophysics,
University of Delhi, India.
hpsingh@physics.du.ac.in

Dr. Anupam Bhardwaj

Assistant Professor
Inter University Center for Astronomy
and Astrophysics (IUCAA),
Pune, India.
anupam.bhardwaj@iucaa.in

Prof. Philippe Prugniel

Professor
Université de Lyon, CNRS,
Lyon, France.
philippe.prugniel@univ-lyon1.fr