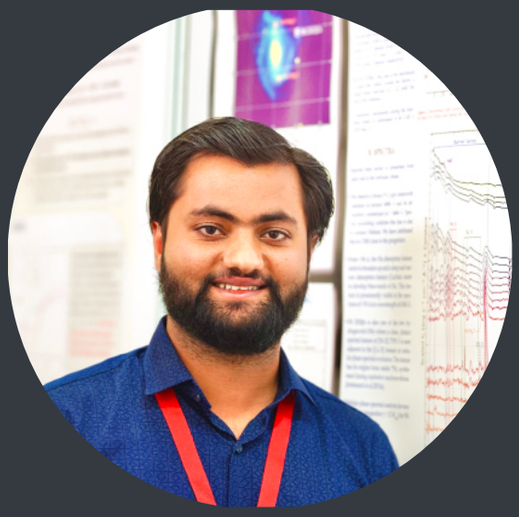

# RISHABH SINGH TEJA

**PhD Student**


*Indian Institute of Astrophysics*
*Bengaluru, Karnataka, India*


Namaste! Hello! Greetings!

I am a Ph.D. student working on the photometric and spectroscopic observations, analysis, and modeling of Core-Collapse Supernovae. I love to do Science as well as Data Science. Presently, I am trying to understand the demises of massive stars in our Universe.


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## EDUCATION

**High School (10th)** 2011 – 2012 — **1st Division**
*Hilton Convent Senior Secondary School, Amroha, UP-244221*
*Hindi, English, Maths, Science, and Social Studies*

**Intermediate (12th)** 2012 – 2014 — **1st Division**
*Hilton Convent Senior Secondary School, Amroha, UP-244221*
*Maths, Physics, Chemistry, English, and Physical Education*

**Graduation (B.Sc. (H) Physics)** 2014 – 2017 — **1st Division**
*Ramjas College, University of Delhi, Delhi-110009*
*Physics and related subjects + Mathematics and Chemistry (2 sem)*

**Post-Graduation (M.Sc. Physics)** 2017 – 2019 — **1st Division [Gold Medal]**
*Department of Physics & Astrophysics, University of Delhi, Delhi-110009*
*[Affiliation: Hansraj College, University of Delhi]*
*Classical, Quantum, Stastitical, Nuclear (Lab+Theory), Electrodynamics, GR & Cosmology, and Astronomy*

**Ph. D. (Astronomy & Astrophysics)** 2019 – ongoing
*Indian Institute of Astrophysics, Bengaluru, Karnataka-560034*
*[Affiliation: Pondicherry University]*
*Topic: An observational perspective into the nature of short-plateau Core-collapse Type II supernovae*

## PUBLICATIONS [First Author]

- **SN 2020jfo: A Short-plateau Type II Supernova from a Low-mass Progenitor** *Rishabh Singh Teja et al 2022 ApJ 930 34*
  *DOI:-* https://doi.org/10.3847/1538-4357/ac610b
- **Far-ultraviolet to Near-infrared Observations of SN 2023ixf: A High-energy Explosion Engulfed in Complex Circumstellar Material** *Rishabh Singh Teja et al 2023 ApJL 954 L12*
  *DOI:- https://doi.org/10.3847/2041-8213/acef20*
- **SN 2018gj: A Short Plateau Type II Supernova with Persistent Blueshifted Ha Emission** *Rishabh Singh Teja et al 2023 ApJ 954 155*
  *DOI:- https://doi.org/10.3847/1538-4357/acdf5e*
- ***SN 2021wvw: A core-collapse supernova at the sub-luminous, slower, and shorter end of Type IIPs***
  *Rishabh Singh Teja et al 2024*
  *[Accepted for the publication in the ApJ]*

## PRESENTATIONS (Talk/ Poster)

- Poster presented on **"Observational studies of a short plateau Type IIP supernova 2020jfo"** at *ASI 2022 Meet, Roorkee, India* (March 2022)
- Poster presented on **"Observations and modelling of two Type IIP supernovae in M61"** in *"IAU Symposium 361: Massive Stars Near and Far", Ballyconnell, Ireland* (May 2022)


**Continued..**

## Interests/Hobbies/Others

- Love playing both indoor and outdoor games such as Table Tennis, Badminton, Volleyball, Cricket, and Chess
- Love reading fiction books
- Ardent Cinema lover
- Tech enthusiast
- Worked on different committes at school and college level
- Presently involved in editorial & design roles for IIA's science e-Magazine 'DOOT' (Chief Editor -2023)
- Part of institute's computer committe as student representative

## Philosophy

I have always believed in working hard with honesty. I am always eager to learn new things, whether new tools, concepts, or even sports. I have always been a very keen listener and love to hear about different things from everyone. I believe in self-learning and followed it most of my life. I have experienced that, howsoever challenging things may seem, if we keep working hard, it eventually bears fruit and presents us with wonderful outcomes. I like to do everything with utmost dedication and passion.

## Societies

- **Life member**, *Astronomical Society of India (ASI)* **[L2454]**

- Contributory talk given on **"Panchromatic observations and modeling of two Type II supernovae in M61: Similar origins yet different fates"** in *"Young Astronomers' Meet 2022", ARIES, Nainital, India* (Nov 2022)

- E-poster preseted on **"Origins of a short plateau type II supernova SN 2020jfo: low mass RSG or binary?"** in *SuperVirtual 2022 [online]* (Nov 2022)

- Contributory talk on **" Understanding Type IIP progenitors with empashis on short plateau Type II Supernovae"** in *Indo/Japan Supernova workshop at Hiroshima University, Japan* (March 2023)

- Contributory talk on **" Low mass red supergiants as the plausible origins of Type II supernovae with short plateau"** in *SuperVirtual 2023 [Online]* (November 2023)

- Contributory talk on **" Nearest supernova in decade 2023ixf: Rapid multi-wavelength follow-up & analysis using space and ground-based facilities"** in the *National Space & Science Symposium-2024*, Goa, India (February 2024)

- Invited talk on **"Decadal SN 2023ixf in FUV to NIR: *A High-energy Explosion Engulfed in Complex CSM; Early days and beyond*"** in SN 2023ixf workshop organized by Weizmann Institute of Science and ESO at ESO, Garching (June 2024)

## SKILLS

**Tools / Softwares**
*MESA Star, STELLA, IRAF, PyRAF, Git, LINUX, SYNAPPS, TARDIS, vim*

**Programming Languages**
*Python , C and C++*

**Languages**
*Hindi (Mother Tongue), English, Punjabi(Speak)*

- **Data Reduced & Used**
*2.0-m HCT, India; Swift/UVOT; Astrosat, India GROWTH India Telescope, Devasthal Optical Telescope, India Kanata, Japan*

**Others**
*MS-Office, matplotlib, scipy, jupyter-notebooks, Tkinter, HTML, Javascript, Adobe InDesign, LaTeX, Machine Learning Basics, CSS*



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# Other Achievements

- **Awarded certificate of merit in high school (CGPA 10.0)**
- **Under top 10 in the district in high school results**
- **Qualified written NDA/NA written Examination (2013)**
- **Qualified written CDS examination twice (2015, 2016)**
- **Qualified IIT-JAM (2017)**
- **Awarded Dr. K.S. Krishnan Gold Medal for highest marks in the University in M.Sc (2019)**
- **Qualified national level CSIR-NET (once) (2018)**
- **Qualified national level CSIR-JRF (twice) (2018, 2019)**
- **Qualified national level GATE exam (2019)**
- **Best Paper Presentation Award at the National Space & Science Symposium-2024, Goa, India**