

# Nayana A.J.

Postdoctoral Fellow, University of California, Berkeley

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## Research Interests

I use multi-wavelength observations of energetic transients, including [Supernovae](#), [Novae](#), and [Fast Blue Optical Transients](#) to answer key questions about their [progenitors](#), [explosion mechanisms](#), [energetics](#), and [environments](#).

## Employment

Postdoctoral Scholar, University of California, Berkeley, USA	2023 – Present
DST INSPIRE Faculty Fellow, Indian Institute of Astrophysics	2021 – 2023
Research Associate, United Arab Emirates University, UAE	2019 – 2020

## Education

NCRA-TIFR	2014 – 2019
Ph.D in Astrophysics	
Thesis: <a href="#">Most energetic explosions and their environments</a>	
Advisor: <a href="#">Poonam Chandra</a>	
Bhabha Atomic Research Centre, Mumbai	2013 – 2014
<a href="#">Junior Research Fellow in physics</a>	
MSc in Physics	2010 – 2012
<a href="#">MES college Ponnani, University of calicut</a>	
BSc in Physics	2007 – 2010
<a href="#">MES college Ponnani, University of calicut</a>	

## Teaching & Mentoring

Taught <i>General Physics</i> course for post-secondary class	2012–2013
Taught <i>Classical mechanics</i> course for postgrads a semester	2013–2014
Taught <i>Electronics</i> course for postgrads a semester	2013–2014
Advisor of Peyton Harris (UC Berkeley), Undergrad	2025–Present
Advisor of William Crowhurst (UC Berkeley), Undergrad	2025–Present

Advisor of Wesley Ishita (UC Berkeley), Undergrad <i>Radio modeling of TDEs and Supernovae</i>	2025–Present
Co-Mentoring Eli Wiston (UC Berkeley), Graduate Student <i>Late-time radio emission from Core-collapse SNe</i>	2023–Present
Advisor of Utkarsh Jain (Heidelberg University), Master Student <i>The Radio emission from Nova V1405Cas</i>	2024–Present
Advisor of Karthika K (Govt College Perinthalmanna), Master Student <i>The 2021 outburst of RS Ophiuchi - intra outburst quiescence</i>	2024–Present
Advisor of Githika Rameshan (CUSAT, Cochin) for MSc project <i>Late-time radio emission from Supernova 2012ap</i>	2023
Advisor of Devika V.S. (Bharat Mata College College, Kerala) for MSc project <i>Radio evolution of Supernova 2008ax</i>	2023
Advisor of Anindri Laha (St Joseph's College, Bangalore) for BSc term paper <i>Radio emission from Core-collapse Supernovae - An overview</i>	2022
Advisor of Allen Gigi (St Joseph's College, Bangalore) for the MSc project <i>Radio properties of Type IIP supernovae</i>	2021–2022
Advisor of Anoop Krishna (NSS College, Ottapalam) for an MSc project <i>The complex environment of Supernova 2014C</i>	2020-2022
Advisor Utkarsh Jain (Bennet University, Noida) for BTech project <i>Energetics and Environments of Supernova 2017eaw</i>	2021-2023
Advisor of Vijay Chawan (NIT, Rourkela) as part of the IIA VSP program <i>Radio emission from Novae - A statistical study</i>	2022

## Awards and Grants

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ALMA Ambassador Cycle 12 (\$10,000 USD) by NAASC and NRAO	2024-2025
India Japan cooperative science programme (DST-JSPS) Co-I	2022–2024
DST INSPIRE Faculty Fellowship	2021
Third prize for the presentation: Young Physicist Colloquium SINP, Kolkata.	2018
Best Poster Award: Astronomical Society of India Meeting	2018
International Astronomical Union travel grant to attend IAU symposium 331	2016
Best Oral presentation Award: National Space Science Symposium	2016
NCRA-TIFR scholarship towards the degree of Doctor of Philosophy	2014
Junior Research Fellowship from the Indian Institute of Astrophysics ( <i>declined</i> )	2014
Junior Research Fellowship from IUCAA ( <i>declined</i> )	2014
Junior Research Fellowship from Bhabha Atomic Research Centre	2013

Universities Grant Commission (UGC) research grant (*declined*)

2013

## Leadership & Professional Services

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Panelist of Supernova science at NASA's 4th TDAMM Workshop Conferences	2025
Member of Extragalactic panel of NOIRLab TAC for semester 26B	2025–2026
ALMA Ambassador for Cycle 12	2024–2025
Referee for Publications of Astronomical Society of Australia (PASA)	2023–Present
Referee for Nature Journal	2023–Present
Referee for GMRT Proposals	2019–Present
Referee for DOT Proposals	2023–Present
Referee for Liverpool Optical Telescope	2023–Present
Referee for ALMA Proposals (distributed peer review)	2024–Present
Referee for Chandra Proposals (distributed peer review)	2025–Present

## Professional Development

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ALMA Ambassador Training at NRAO	2025
International Young Leaders Forum (IYLF) 2022, Virtual meeting, 28 January	2022
Chandra Interactive Analysis of Observation (CIAO) workshop, NCRA-TIFR	2017
Participated in the workshop on ASTROSAT, IUCAA Pune	2016
Participated in Radio Astronomy School, NCRA-TIFR, Pune	2015
Workshop on Galaxies and Cosmology, NCRA-TIFR, Pune	2014

## Outreach

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Mentor in the <a href="#">Supernova Foundation program</a>	2024–Present
Letter writer in the <a href="#">“Letter to a pre-scientist Program”</a>	2024–Present
Coordinator of <a href="#">POWER</a> Bay Area Program	2024–Present
Member of the Science Communication, Public Outreach and Education <a href="#">(SCOPE)</a> (Indian Institute of Astrophysics)	2021–2023

## Invited Talks

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|---|------|
| 1. "Observatories Forum – AEON+", Santa Barbara, CA, 23–25 Sep                        | 2025 |
| 2. "Conference on GRBs and Central Engines"<br>Playa Del Carmen, Mexico, 2–6 December | 2024 |
| 3. "An Evening with the stars: Exploring the fourth dimension – Time"                 |      |

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| organized by Berkeley astronomy Department, 23 May   | 2024 |
| 4. 243rd American Astronomical Society meeting, New Orleans, 7 – 11 January  | 2024 |
| 5. Deep Synoptic Array Zoom meeting, organized at Caltec, 12 October   | 2023 |
| 6. Workshop on "Women in Astronomy", Marthoma College, India, 6–8 December 2022  |      |
| 7. Astronomy seminar at the Cochin University of Science and Technology, 19 July,  | 2022 |
| 8. National conference on "Astrophysical jets and observational facilities: National perspective", online meeting, ARIES Nainital, 5–9 April | 2021 |

## Contributed Talks and Colloquium

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| 1. Talk at One hundred Years of Supernova Science conference (remote), Stockholm 18–22 August                                  | 2025 |
| 2. Talk at the SKA Science Meeting (remote), Gorlitz, Germany, 16-20 June  | 2025 |
| 3. Astronomy Seminar at the Raman Research Institute (RRI), 19 June  | 2025 |
| 4. Astronomy Colloquium at the National Centre for Radio Astrophysics (NCRA), Pune, India, 16 June                             | 2025 |
| 5. Lunch Talk at National Radio Astronomy Observatory (NRAO), 3 Feb  | 2025 |
| 6. Lunch talk at UC Berkeley, 7 November   | 2024 |
| 7. Explosive Astro Meeting, UC Berkeley, 17 April  | 2023 |
| 8. Astronomical Society of India (ASI) meeting, IIT Indore, 1 – 5 March  | 2023 |
| 9. Astronomical society of India (ASI) meeting, IIT Roorkee, 25–29 March   | 2022 |
| 10. Talk at Indian Institute of Technology (IIT) Mumbai, 08 June   | 2020 |
| 11. Workshop on GRBs and Gamma-Ray Astrophysics, American University of Sharjah, Sharjah, UAE, 27 October                      | 2018 |
| 12. Astronomy Seminar at UAE University, Al-Ain UAE, 18 October  | 2018 |
| 13. Astronomy Seminar at New York University Abu Dhabi, UAE, 17 October  | 2018 |
| 14. Astronomy Seminar at St. Dominics College, Kerala, September,  | 2018 |
| 15. Talk at Young Physicist Colloquium 2018, SINP, Kolkata, India 23-24 August   | 2018 |
| 16. Astronomy Seminar at Laboratoire Univers et Particules Montpellier (LUPM), Montpellier, France, June                       | 2018 |
| 17. Astronomy Seminar at Ruhr University, Bochum, Germany, June  | 2018 |
| 18. Lunch talk at Kapteyn Astronomical Institute, Netherlands, June  | 2018 |
| 19. Shocking Supernovae: surrounding interactions and unusual events conference, Stockholm University, Sweden, 28 May - 1 June | 2018 |
| 20. Talk at New York University, Abu Dhabi, 17 December  | 2017 |
| 21. Regional Astronomers Meeting on Astronomy - IV, Wayanad, December  | 2017 |

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| 22. Recent Trends in the Study of Compact Objects - Theory and Observation meeting, IIST, Trivandrum, 5-7 June | 2017 |
| 23. Astronomical Society of India (ASI) meeting, Birla Institute of Scientific Research, Jaipur, 6–10 March    | 2017 |
| 24. International Astronomical Union Symposium 331 (IAUS 331), La Reunion Island, France, 20–24 February       | 2017 |
| 25. National Space Science Symposium (NSSS), Trivandrum, 9-12 February   | 2016 |

## Poster Presentations

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| 1. "Energetic Explosions: Progenitors and their Environments"; Poster presentation of ALMA cycle12 Ambassadors at NRAO, Charlottesville, 4–6 Feb  | 2025 |
| 2. "Radio observations and modeling of a type IIb supernova SN 2016gkg"; conference on "VLASS in the Multiwavelength Spotlight", Socorro, 7–10 September, (virtual participation)                     | 2022 |
| 3. "Low-frequency radio view of a fast-blue optical transient -AT2018cow"; IAU Symposium No. 361, Massive Stars Near and Far, Ireland, 8–13 May,  | 2022 |
| 4. "Radio Observations of Type Ib supernova MASTER OT J120451.50+265946.6", Shocking Supernovae: surrounding interactions and unusual events conference, Stockholm University, Sweden, 28 May-1 June, | 2018 |
| 5. "Low-frequency radio observations of a TeV SNR HESS J1731–347"; Astronomical Society of India (ASI) meeting, Osmania University, Hyderabad, 5–9 February,  | 2018 |
| 6. Astronomical Society of India (ASI) meeting, Kashmir University, 10–13 May   | 2016 |

## Publications

I have been an author on 39 publications (35 published/accepted; 4 under review), including 9 first author publications, and 3 second author publications. A full listing of my publications can be found on the [ADS](#). Total citations: 993 , H-index: 14

## First Author Publications (9)

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| 1. <i>"The Most Luminous Known Fast Blue Optical Transient AT 2024wpp: Unprecedented Evolution and Properties in the X-rays and Radio"</i> ; Nayana, A. J. ; Raffaella Margutti ; Eli Wiston et al. 2025 (ApJ Letters in press) <a href="#">arXiv</a> |
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2. *"Dinosaur in a Haystack : X-ray View of the Entrails of SN 2023ixf and the Radio Afterglow of Its Interaction with the Medium Spawned by the Progenitor Star (Paper 1)"*; Nayana, A. J. ; Raffaella Margutti ; Eli Wiston ; Ryan Chornock et al. 2025 ([ApJ](#) 985:51, 2025 May 20).
3. *"Shock-driven synchrotron radio emission from the 2021 outburst of RS Ophiuchi"*; Nayana, A. J. ; Anupama, G. C. ; Roy, Nirupam ; Banerjee, Dipankar P. K. ; Singh, Kulinder Pal ; Sonith, L. S. ; Kamath, U. S. ([MNRAS](#) 528, 5528–5536, 2024 January 22)
4. *"Radio evolution of a type IIb supernova SN 2016gkg"*; Nayana A.J.; Poonam Chandra; Anoop Krishna; and G.C. Anupama. ([ApJ](#) 934:186N, 2022 August 1)
5. *"uGMRT observations of a Fast Blue Optical Transient, AT2018cow"*; Nayana A.J. and Poonam Chandra; ([ApJL](#) 912:L9 (7pp) 2021, May 2021)
6. *"ALMA observations of HCO<sup>+</sup> and HCN emission in a massive star-forming region N 55 of the Large Magellanic Cloud."*; Nayana A.J.; Naslim, N; Onishi, T, Kemper, F; Tokuda, K; Madden, S.C; Morata, O; Nasri, S, and Galametz, M; ([ApJ](#) 902:140N, 2020 October 21.)
7. *"Radio view of a broad-line Type Ic supernova - ASASSN16fp"*, Nayana A.J. & Poonam Chandra; [MNRAS](#) 494:84, 2020 March 13.
8. *"Long-term behavior of a Type IIP Supernova SN 2004dj in the radio bands"*, Nayana A.J.; Poonam Chandra and Alak K. Ray; [ApJ](#) 863:163 (13pp), 2018 August 20.
9. *"325 and 610 MHz Radio Counterparts of SNR G353.6–0.7 a.k.a HESS J1731–347"*, Nayana A.J.; Chandra, Poonam; Roy, Subhashis; Green, David A; Acero, Fabio; Lemoine-Goumard, Marianne; Marcowith, Alexandre; Ray, Alak K, and Renaud, Matthieu; [MNRAS](#) 467(1): 155-163, 2017 January 11.

## Second Author Publications (3)

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1. *"The first radio view of a type Ibn supernova in SN 2023fyq: Understanding the mass-loss history in the last decade before the explosion"*; Raphael Baer-way, Nayana A.J., Wynn Jacobson-Galan, Poonam Chandra (ApJ Letters under review) [arXiv](#) (student lead paper)
2. *"Lepto-hadronic Interpretation of 2021 RS Ophiuchi Nova Outburst"*; Agnibha de Sarkar, Nayana A.J.; Nirupam Roy; Razzaque, Soebur; and G.C. Anupama. [ApJ](#) 951:62, 2023 July 1 (student lead paper)
3. *"Radio Observations of Type Ib Supernova Master OT J120451.50+265946.6 reveal inhomogeneous emitting region crossing through a dense shell"*, Poonam Chandra; Nayana A.J.; C.-T, Bjornsson; Peter Lundqvist; Subo Dong; Alak K. ray; Jose L. Prieto; and Benjamin J. Shappee; [ApJ](#) 877:79C, 2019 June 1.

## Co-Author Publications (27)

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1. *"The Most Luminous Known Fast Blue Optical Transient AT 2024wpp: Unprecedented Evolution and Properties in the Ultraviolet to the Near-Infrared"*; Natalie LeBaron, Raffaella Margutti, Ryan Chornock, Nayana A.J. et al. ([arXiv](#), [ApJ Letters under review](#), 2025)
2. *"The La Silla Schmidt Southern Survey"*; Adam A. Miller, Natasha S. Abrams, Greg Aldering, Shreya Anand et al including Nayana A.J. ([arXiv](#), [PASP under review](#), 2025)
3. *"SVOM GRB 250314A at  $z \simeq 7.3$ : an exploding star in the era of reionization"*; B. Cordier, J. Y. Wei, N. R. Tanvir, S. D. Vergan; et al including Nayana A.J. ([arXiv](#), [A&A under review](#), 2025)
4. *"Optically Overluminous Tidal Disruption Events: Outflow Properties and Implications for Extremely Relativistic Disruptions"*; Yuhan Yao, Kate D. Alexander, Wenbin Lu, Jean J. Somalwar; et al including Nayana A.J. ([arXiv](#), [ApJ Letters in press](#), 2025)
5. *"The First Radio-Bright Off-Nuclear TDE 2024tvd Reveals the Fastest-Evolving Double-Peaked Radio Emission"*; Itai Sfaradi, Raffaella Margutti, Ryan Chornock, Kate D. Alexander; et al including Nayana A.J. ([arXiv](#), [ApJ Letters in press](#), 2025)
6. *"Transients and time domain Astrophysics"*; Varun Bhalerao, Kuntal Misra, G.C. Anupama, Shabnam Iyyani, Nayana A.J. et al. ([IAA](#) 46:40, 2025)
7. *"Rubin ToO 2024: Envisioning the Vera C. Rubin Observatory LSST Target of Opportunity program"*; Igor Andreoni, Raffaella Margutti, Banovetz John et al. including Nayana A.J. ([arXiv](#), 2025)
8. *"Eight Years of Light from ASASSN-15oi: Toward Understanding the Late-time Evolution of TDEs"*; Srinivasaragavan, Gokul P.; Perley, Daniel A.; Ho, Anna Y. Q.; O'Connor, Brendan; et al including Nayana A.J. ([ApJ](#) 983:29 (28pp), 10 April 2025)
9. *"Multi-Wavelength Analysis of AT 2023sva: A Luminous Orphan Afterglow With Evidence for a Structured Jet"*; Srinivasaragavan, Gokul P.; Perley, Daniel A.; Ho, Anna Y. Q. et al including Nayana A.J. ([MNRAS](#) 538, 351–372 2025)
10. *"A diverse, overlooked population of Type Ia supernovae exhibiting mid-infrared signatures of delayed circumstellar interaction"*; Mo, Geoffrey; De, Kishalay; Wiston, Eli; Nayana A. J.; Margutti, Raffaella et al. ([ApJL](#) 980:L33, 13pp), 20 February 2025)
11. *"A Multiwavelength Autopsy of the Interacting II In Supernova 2020ywx: Tracing its Progenitor Mass-Loss History for 100 Years before Death"*; Baer-Way, Raphael; Chandra, Poonam; Modjaz, Maryam; Kumar, Sahana; Pellegrino, Craig et al including Nayana A.J. ([ApJ](#) 983:101, 26pp), 20 April 2025)



12. *"The Nature of Optical Afterglows Without Gamma-ray Bursts: Identification of AT2023lcr and Multiwavelength Modeling"*; Li, Maggie L. ; Ho, Anna Y. Q. ; Ryan, Geoffrey ; Perley, Daniel A. ; Lamb, Gavin P. ; Nayana, A. J. ([ApJ](#) 985:124 , 32pp), 20 May 2025)
13. *"Rocking the BOAT: the ups and downs of the long-term radio light curve for GRB 221009A"*; L Rhodes, A. J. Van der Horst, J.S. Bright et al. including Nayana A.J. ([arXiv:2408.16637](#), 2024 September)
14. *"A VLBA-uGMRT search for candidate binary black holes: study of six X-shaped radio galaxies with double-peaked emission lines"*; Biny Sebastian, Anderson Caproni, Preeti Kharb, A. J. Nayana et al.; ([MNRAS](#) 530, 4902–4919, 2024 February 21)
15. *"Roaring to Softly Whispering: X-Ray Emission after ~3.7 yr at the Location of the Transient AT2018cow and Implications for Accretion-powered Scenarios"*; Giulia Migliori, R. Margutti, B. D. Metzger, R. Chornock et al. including Nayana A.J.; ([ApJL](#) 963:L24, 2024 March 1)
16. *"Chandra's Insights into SN 2023ixf"*; Poonam Chandra, Roger Chevalier, Keiichi Maeda, Alak ray, and Nayana A.J.; ([ApJL](#) 963:L4, 2024 March 1)
17. *"Minutes-duration Optical Flares with Supernova Luminosities"*; Anna Y. Q. Ho; Daniel A. Perley; Ping Chen; Steve Schulze; Vik Dhillon; Harsh Kumar and co-authors including Nayana A.J.; ([Nature](#), 2023 November 15)
18. *"AT2019wxt: An ultra-stripped supernova candidate discovered in electromagnetic follow-up of a gravitational wave trigger"*; Hinna Shivkumar, Amruta D. Jaodand, Arvind Balasubramanian, Christoffer Fremling and co-authors including Nayana A.J.; ([ApJ](#) 952:86, 2023 July 20).
19. *"Bridging between Type IIb and Ib Supernovae: SN IIb 2022crv with a Very Thin Hydrogen Envelope"*; Anjasha Gangopadhyay; Keiichi Maeda; Avinash Singh; Nayana A. J.; Tatsuya Nakaoka and co-authors ([ApJ](#) 957:100, 2023 November 10).
20. *"Far-ultraviolet to Near-infrared Observations of SN 2023ixf: A High-energy Explosion Engulfed in Complex Circumstellar Material"*; Rishabh Singh Teja; Avinash Singh; Judhajeet Basu; G. C. Anupama; D. K. Sahu; and co-authors including Nayana A. J.; ([ApJ](#) 955:L12, 2023 September 1).
21. *"Optical discovery of a relativistic jet from the tidal disruption of a star by a supermassive black hole"*; Igor Andreoni; Michael W. Coughlin; Daniel A. Perley; Yuhan Yao; Wenbin Lu, S; Bradley Cenko and co-authors including Nayana A.J.; ([Nature](#), 2022 November 30)
22. *"The X-ray and Radio Loud Fast Blue Optical Transient AT2020mrf: Implications for an Emerging Class of Engine-Driven Massive Star Explosions"*; Yuhan Yao; Anna Y. Q. Ho; Pavel Medvedev; Nayana A. J.; Daniel A. Perley; S. R. Kulkarni; Poonam Chandra; Sergey



- Sazonov; Marat Gilfanov; Georgii Khorunzhev; David K. Khatami; and Rashid Sunyaev; ([ApJ](#) 934:104Y, 2022 August 1).
23. *"SN 2020jfo: A short plateau Type II supernova from a low mass progenitor"*; Rishabh Singh Teja, Avinash Singh, D.K. Sahu, G.C. Anupama, Brajesh Kumar, and Nayana A.J; ([ApJ](#) 930:34T, 2022 May 1)
  24. *"SN 2020sck: deflagration in a carbon-oxygen white dwarf"*; Anirban Dutta; Dutta, Anirban; D.K. Sahu; G. C. Anupama; Simran Joharle; Brajesh Kumar; Nayana A J; Avinash Singh; Harsh Kumar; Varun Bhalerao; and Sudhansu Barway; ([ApJ](#) 925:217; 2022 Feb 1)
  25. *"A Mildly Relativistic Outflow from the Energetic, Fast-rising Blue Optical Transient CSS161010 in a Dwarf Galaxy"*, Coppejans, D.L; Margutti, R; Terreran, G; Nayana A.J.; Coughlin, E.R.; Laskar, T; Alexander, K.D.; Bietenholz, M; Caprioli, D; Chandra, P.; Drout, M.R.; Frederiks, D; Frohmler, C et al.; [ApJL](#) 895:L23; 2020 May 26.
  26. *"The Panchromatic Afterglow of GW170817: The full uniform dataset, modeling, comparison with previous results and implications."*, Makhathini, S; Mooley, K.P; Brightman, Murray; Hotokezaka, K; Nayana A.J.; Intema, Huib T; Dobie, Dougal; Lenc, E; Perley, Daniel A; Fremling, Christoffer et al; ([ApJ](#) 922:154M; 2021 Dec 1).
  27. *"A strong jet signature in the late-time light curve of GW170817"*, K.P. Mooley; D.A. Frail; D. Dobie; E. Lenc; A. Corsi; K. DE; A.J. Nayana; S. Makhathini; I. Heywood; T. Murphy; D. L. Kaplan; P. Chandra; O. Smirnov; E. Nakar; G. Hallinan; F. Camilo; R. Fender; S. Goedhart; P. Groot; M. M. Kasliwal; S. R. Kulkarni and P.A. Woudt; [ApJL](#) 868:L11 (8 pp), 2018 Nov 20.

## Conference Proceedings

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1. *"Low-frequency radio view of a fast-blue optical transient - AT 2018cow"*, Nayana A.J.; Chandra, Poonam; [Proceedings](#) of the International Astronomical Union: Volume 361; pp 602-604; 2024.
2. *"Low frequency radio counterparts of HESS J1731–347 a.k.a SNR G353.6–0.7"*, Nayana A.J.; Chandra, Poonam; [Proceedings](#) of the International Astronomical Union: Volume 12; Issue S331, pp 201-205; 2017.

## Telegrams and Circulars (51)

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1. *"GRB 250702B/EP250702a: JWST/NIRCam Observations"*, Huei Sears, P. K. Blanchard, Ryan Chornock, Nayana A.J. et al. , 2025, GCN No 42145
2. *"EP250304a: ATCA radio observations"*, Yuhang Yao, Nayana A.J., Eli Wiston, Raffaella Margutti, Ryan Chornock et al. , 2025, GCN No 40143

3. *"The first case of radio spectral inversion in an FBOT at late time - AT2024wpp"*, Nayana A.J.; Raffaella Margutti, Tanmoy Laskar, Tim Galvin, Eli Wiston, Ryan Chornock et al. , 2025, AstroNote 2025-114
4. *"VLA radio detection of the off-nuclear TDE AT 2024tvd"*, Itai Sfaradi, Ryan Chornock, Kate Alexander, Raffaella Margutti, Yuhan Yao, Nayana A.J. et al. , 2025, AstroNote 2025-14
5. *"Radio observation of the FBOT AT 2024wpp with the Allen Telescope Array"*, Itai Sfaradi, Raffaella Margutti, Wael farah, Eli Wiston, Nayana A.J. et al. , 2024, AstroNote 2024-290
6. *"X-ray re-brightening and spectral hardening of the FBOT AT2024wpp"*, Raffaella Margutti, Nayana A.J. Ryan Chornock et al. , 2024, AstroNote 2024-339
7. *"NuSTAR detection of the FBOT AT2024wpp"*, Raffaella Margutti, Nayana A.J. Ryan Chornock, Eli Wiston et al. , 2025, AstroNote 2024-278
8. *"Swift-XRT detection at the location of the FBOT candidate AT2024qfm"*, Raffaella Margutti, Nayana A.J., Huei Sears 2024, ATel 16748
9. *"NuSTAR detection of the FBOT AT2024qfm and evidence for soft X-ray variability from Swift-XRT"*, Raffaella Margutti, Nayana A.J., Ryan Chornock et al. 2024, AstroNote 2024-214
10. *"Radio Detection of SN2023ixf at 10 GHz"*, David Matthews, Raffaella Margutti, Nayana A.J., Wynn Jacobson-Galan et al. 2023, ATel 16091
11. *"Radio Detection of SN2023ixf at 10 GHz"*, David Matthews, Raffaella Margutti, Nayana A.J., Wynn Jacobson-Galan et al. 2023, AstroNote 2023-180
12. *"Chandra X-ray detection of supernova SN 2023ixf in M101"*, Poonam Chandra, Keiichi Maeda, Roger Chevalier, Nayana A.J. & Alak Ray 2023, ATel 16073
13. *"uGMRT radio upper limit on Supernova SN 2023ixf in M101"*, Poonam Chandra, Keiichi Maeda, Roger Chevalier, Nayana A.J. 2023, ATel 16052
14. *"uGMRT observations of recurrent nova - U Sco"*, Nayana A.J.; G.C. Anupama, Dipankar Banerjee, Nirupam Roy, K.P. Singh, Sonith L.S., 2022, ATel 15449.
15. *"uGMRT detection of Galactic Nova - V1405 Cas"*, Nayana A.J.; G.C. Anupama, Dipankar Banerjee, Nirupam Roy, K.P. Singh, Sonith L.S., 2022, ATel 15383.
16. *"uGMRT observations of the 2021 outburst of RS Ophiuchi"*, Nayana A.J.; G.C. Anupama, Dipankar Banerjee, Nirupam Roy, K.P. Singh, Sonith L.S., 2022, ATel 14899.
17. *"uGMRT radio non-detection of the TDE AT2020zso."*, Rupak Roy; Nayana A.J.; Poonam Chandra, 2021, ATel 14828.
18. *"uGMRT radio upper limits on hydrogen-poor super-luminous supernova SN 2017ens."*, Chandra, Poonam; Bera, Apurba; Biswas, Ayan; Mondal, Surajit; and Nayana, A.J., 2021, ATel 14448.

19. *"Possible uGMRT detection of ZTF20abtxwfx."*, Nayana, A. J.; Chandra, P. 2020, ATel 14049.
20. *"GMRT observations of Type Ic supernova SN 2018ebt."*, Nayana, A. J.; Chandra, P. 2018, ATel 12069.
21. *"Low frequency detection of AT2018cow with the GMRT."*, Nayana, A. J.; Chandra, P. 2018, ATel 11950.
22. *"GMRT radio detection of GRB 180720B."*, Chandra, P; Nayana, A. J; Dipankar Bhattacharya (IUCAA); S. Bradley Cenko (NASA) and Alessandra Corsi (Texas-Tech) 2018, GCN 23073.
23. *"GMRT observations of AT 2018cow"*, Nayana, A. J.; Chandra, P; Anna Ho (Caltech); Mansi Kasliwal (Caltech), Varun Bhalerao (IIT-Mumbai); S. R. Kulkarni (Caltech). 2018, ATel 11794.
24. *"GMRT observations of Type IIP supernova SN 2018acj"*, Nayana, A. J.; Chandra, P. 2018, ATel 11483.
25. *"GMRT observations of a type IIn supernova SN 2018zd"*, Nayana, A. J.; Chandra, P. 2018, ATel 11411.
26. *"GMRT observations of a type IIP supernova SN 2018pn"*, Nayana, A. J.; Chandra, P. 2018, ATel 11352.
27. *"GMRT observations of a type II supernova SN 2018gj"*, Nayana, A. J.; Chandra, P. 2018, ATel 11351.
28. *"GMRT observations of a type Ic supernova SN 2018ec"*, Nayana, A. J.; Chandra, P. 2018, ATel 11350.
29. *"GMRT upper limit on GRB 171205A"*, Chandra, P; Nayana, A.J; Dipankar Bhattacharya (IUCAA), S. Bradley Cenko (NASA) and Alessandra Corsi (Texas Tech University) 2017, GCN 22222.
30. *"GMRT observations of a type II supernova SN 2017hpi"*, Nayana, A. J.; Chandra, P. 2017, ATel 11016.
31. *"GMRT radio upper limits on a type IIn supernova SN 2017bcc"*, Nayana, A. J.; Chandra, P. 2017, ATel 11015.
32. *"GMRT radio detection of a type II supernova SN 2017eaw"*, Nayana, A. J.; Chandra, P. 2017, ATel 10534.
33. *"Low frequency GMRT observations of supernova SN 2017eaw"*, Nayana, A. J.; Chandra, P. 2017, ATel 10388.
34. *"Radio upper limit on the GRB 141121A with the GMRT"*, Nayana, A. J.; Chandra, P. 2015, GCN 17284.

35. *"GMRT radio detection of Type Ib supernova MASTER OTJ120451.50+265946.6"*, Chandra, Poonam; Nayana, A. J.; Ray, Alak; Yadav, Naveen; Chakraborti, Sayan 2014, ATel 6755.
36. *"Possible radio detection of GRB 140903A with the GMRT"*, Nayana, A. J.; Chandra, P. 2014, GCN 16815.
37. *"Radio upper limit on the GRB 140808A with the GMRT"*, Chandra, P.; Nayana, A. J. 2014, GCN 16715.
38. *"Radio upper limits on the GRB 140703A with the GMRT"*, Nayana, A. J.; Chandra, P. 2014, GCN 16591.
39. *"GMRT radio detection of GRB 151027A"*, Nayana, A. J.; Chandra, P. 2015, GCN 18608.
40. *"GMRT radio detection of a Type IIb supernova SN 2016gkg"*, Nayana, A. J.; Chandra, P. 2016, ATel 9761.
41. *"GMRT radio detection of Type Ib supernova PSNJ14102342-4318437"*, Nayana, A. J.; Chandra, P. 2016, ATel 9202.
42. *"GMRT radio detection of broad lined Type Ic supernova ASASSN-16fp"*, Nayana, A. J.; Chandra, P. 2016, ATel 9201.
43. *"GMRT Observations of supernova ASASSN-16fp"*, Nayana, A. J.; Chandra, P. 2016, ATel 9128.
44. *"Radio upper limit on the GRB 161011A with the GMRT"*, Nayana, A. J.; Chand, V.; Chandra, P.; Rao, A. R. 2016, GCN 20105.
45. *"Possible radio detection of GRB 160910A with the GMRT"*, Nayana, A. J.; Chandra, P. 2016, GCN 19966.
46. *"Possible radio detection of GRB160703A with the GMRT"*, Nayana, A. J.; Chandra, P.; Rao, A. R.; Bhattacharya, D.; Bhalerao, V. 2016, GCN 19849.
47. *"Possible radio detection of GRB160623A with the GMRT"*, Nayana, A. J.; Chandra, P.; Rao, A. R.; Bhattacharya, D.; Bhalerao, V. 2016, GCN 19848.
48. *"GMRT observations of SN 2016bkv"*, Nayana, A. J.; Chandra, P. 2016, ATel 8901.
49. *"GRB 160131A: second epoch observations with the GMRT"*, Chandra, P. ; Nayana, A. J.; 2016, GCN 19010.
50. *"Low frequency GMRT observations of GRB 160131A"*, Chandra, P. ; Nayana, A. J.; 2016, GCN 19009.
51. *"610 MHz detection of GRB 151027A with the GMRT"*, Chandra, P. ; Nayana, A. J.; 2015, GCN 18620.
52. *"GMRT radio detection of Type Ib supernova MASTER OTJ120451.50+265946.6."*, Chandra, P. ; Nayana, A. J.; Ray, Alak; Yadav, Naveen; Chakraborti, Sayan.

## Telescope Time Awards (as PI)

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Atacama Large Millimeter/submillimeter Array (ALMA); 2 proposals	2.2 hrs
Northern Extended Millimeter Array (NOEMA); 4 proposals	29 hrs
Very Large Array (VLA); 7 Proposals	28.5 hrs
Australia Telescope Compact Array; 4 proposals	168 hrs
Giant Metrewave Radio telescope; 50 proposals	761 hrs
MeerKAT; 1 proposal	14 hrs
XMM Newton; 1 proposal	24 ks

### List of ALMA Proposals (as PI)

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|---|---------|
| 1. ALMA observations of AT2024wpp, 2024.A.00003.T           | 1.1 hrs |
| 2. ALMA follow-up observations of AT2024wpp, 2024.A.00009.T | 1.1 hrs |

### List of NOEMA Proposals (as PI)

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|---|---------|
| 1. Determining the immediate environment properties of FBOs, S25CZ    | 8.5 hrs |
| 2. Determining the immediate environment properties of FBOs, W24EY    | 8.5 hrs |
| 3. NOEMA DDT observations of a FBOT - AT2024wpp, D24AC                | 6.0 hrs |
| 4. Probing SN2023ixf's unexpected radio brightening with NOEMA, D23AH | 6.0 hrs |

### List of VLA Proposals (as PI)

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|---|----------|
| 1. A deep search for radio emission from Type-Ia SNe with MIR brightenings, 24A-498 | 2.0 hrs  |
| 2. Continuing the VLA monitoring of the closest core-collapse SN2023ixf, 25A-337    | 4.0 hrs  |
| 3. Radio Observations of Fast Blue Optical Transients, 24B-081                      | 11.0 hrs |
| 4. Probing the late-time radio emission from an old supernova - SN2012au, 23B-330   | 3.0 hrs  |
| 5. JVLA observations of SN2014C, 22A-141  | 3.0 hrs  |
| 6. Very Large Array (VLA) proposal on HESS J1731-247, 17A-162                       | 4.0 hrs  |
| 7. VLA proposal on Supernova Asassn16fp, 17A-167                                    | 1.5 hrs  |

### List of ATCA Proposals (as PI)

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|---|--------|
| 1. ATCA Observations of Fast Blue Optical Transients, C3419 (NAPA) 2025OCTS | 34 hrs |
|---|--------|

2. Re-emergence of historical Supernovae - An ATCA view, C3696	66 hrs
3. ATCA Observations of Fast Blue Optical Transients, C3419 (NAPA) 2025APRS	34 hrs
4. ATCA Observations of Fast Blue Optical Transients, C3419 (NAPA) 2024OCTS	34 hrs

#### List of MeerKAT Proposals (as PI)

1. A southern radio survey of Fast Blue Optical Transients, MKT-23164 (TOO)	14 hrs
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#### List of GMRT Proposals (as PI)

1. GMRT observations of radio nova V1405 Cas in its 2021 outburst, cycle 42	12 hrs
8. GMRT ToO proposal to observe Galactic novae, cycle 42	8 hrs
9. GMRT follow up observations of intermediate age supernovae, cycle 42	36 hrs
10. GMRT observations of recurrent nova RS Ophiuchi in its 2021 outburst, cycle 42	12 hrs
11. GMRT ToO observations of FBOTs, cycle 40, 41, and 42	26 hrs
12. GMRT observations of FBOT AT2018cow, cycle 38, 37, 36 and 35	62 hrs
13. GMRT observations of 6 supernovae, cycle 38, 37, 36, 35, 34, 33, and 32	306 hrs
14. GMRT proposal to detect shocked neutral hydrogen associated with the X-ray bright SNR RXJ1713.7–3946, cycle 37	8 hrs
15. GMRT observations of a TeV SNR, SN1006, cycle 37 and 36	21 hrs
16. GMRT ToO proposal to find radio emission from core-collapse SNe, cycle 34	30 hrs
17. GMRT proposal on HESS J1731–347 in band 550-900 MHz, cycle 33	8 hrs
18. ToO proposal to find radio emission from core-collapse SNe, cycle 33	50 hrs
19. GMRT proposal on searching for radio emission from Type II SNe, cycle 32	18 hrs
20. GMRT proposal on supernova SN 2004DJ, cycle 31	11 hrs
21. GMRT proposal on 3 radio Supernovae, cycle 31	34 hrs
22. GMRT proposal on Type II Supernovae, cycle 31	24 hrs
23. uGMRT proposal on HESS J1731-347, cycle 31	8 hrs
24. GMRT proposal on Type II Supernovae, cycle 30	36 hrs
25. GMRT DDT proposal on GRB 161011A , DDTB248	6 hrs
26. GMRT DDT proposal on GRB 160910A, DDTB245	6 hrs
27. GMRT DDT proposal on GRB 141121A, DDTB150	6 hrs
28. GMRT DDT proposal on GRB 140903A, DDTB141	6 hrs
29. GMRT DDT proposal on SN2016gkg, DDTB246 & DDTB256	14 hrs
30. GMRT DDT proposal on Asassn-16fp, DDTB233	9 hrs
31. GMRT DDT proposal on GRB140703A, DDTB133	4 hrs



## Media Coverage

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### FBOT AT2018cow work:

1. "uGMRT reveals for the first time the patchy environment of a rare cosmic explosion", [EurekAlert](#), 3 May 2021.
2. "uGMRT enables study of environment around rare transient object 215 million light years away", [The Indian Express](#), 1 May 2021.
3. "GMRT captures facets of a rare cosmic explosion", [The Times of India](#), 1 May 2021.
4. "Astronomers puzzled by the cow in the sky", [The HINDU](#), 1 July 2018.

### FBOT CSS161010 work:

5. "GMRT helps detect fastest transient object with hydrogen", [The Indian Express](#), 27 May 2020.
6. "Pune radio telescope helps discover new class of powerful astronomical explosions", [Hindustan times](#), 27 May 2020.
7. "Astronomers find new class of transients", [The Times of India](#), 27 May 2020.