ADITI AGARWAL — CURRICULUM VITAE

CONTACT

The Thanu Padmanabhan Center for Cosmology and Science Popularization, SGT University, Delhi- NCR - 122505

Tel: +91- 7259671750

email: aditiagarwal.phy@gmail.com

PERSONAL

Nationality: Indian

Date of Birth: 20th April, 1989

POSITIONS HELD

- ASSISTANT PROFESSOR at the Center for Cosmology and Science Popularization (CCSP), SGT University, Delhi- NCR - 122505, *May 2023 – Present*
- RESEARCH ASSOCIATE (POSTDOCTORAL FELLOW) at Raman Research Institute, Bangalore, India, *September 2019 – March 2023*
- VISITING SCIENTIST at Indian Institute of Astrophysics (IIA), Bangalore, India, *June 2019 – September 2019*
- POSTDOCTORATE holding National Post Doctoral Fellowship (NPDF) at Indian Institute of Astrophysics (IIA), Bangalore, India, *2017 – June 2019*

EDUCATION

PH.D. IN PHYSICS (SUB-TOPIC - ASTROPHYSICS:) from **A**ryabhatta **R**esearch **I**nstitute of observational scienc**ES** (ARIES), Nainital, India *2012 – 2017*

Thesis Title: *Multi-wavelength studies of blazars*

Supervisor: Dr. Alok C. Gupta

MSc. in Physics: Specialization in Electronics and Astrophysics, Hansraj College, Delhi University, New Delhi – 7, 2009-2011

BSc.(Honours) in Physics, Hansraj College, Delhi University, New Delhi-7, 2006-2009

RESEARCH INTERESTS

- Multi-wavelength flux and spectral variability of Blazars on diverse timescales.
- Quasi-Periodic Oscillations (QPOs) in various classes of AGNs on diverse timescales.
- Multi-wavelength variability of various classes of luminous AGNs.
- Black hole mass and spin in the transient Universe.
- Ultra High Energy Cosmic Ray (UHECR) emitting AGNs.
- Application of machine learning to Astronomy.

OBSERVATION EXPERIENCE

Observation time for the following telescopes was allocated through their proposal submission system.

- 2-m aperture optical-infrared telescope, the Himalayan Chandra Telescope (HCT), IIA, India
- 1-m aperture optical telescope at Manora Peak, ARIES, India.
- Ritchey-Chretien Cassegrain 1.3-m diameter Devasthal Fast Optical, ARIES, India.
- 1-m and 1.3-m optical telescopes at VBO, Kavalur, India
- Giant Metrewave Radio Telescope (GMRT), NCRA, India.
- CASLEO (Argentina): Jorge Sahade 2.15 m and Helen Sawyer Hogg 0.6 m telescopes.
- Istanbul University, Turkey: 1.0 m Ritchey-Chretien (RC) and 60 cm RC robotic telescopes.

Research Experience

Extensive multi-wavelength observing and data analysis experience. I also have expertise in archive data analysis of various ground and satellite-based observations as follows:

Gamma-ray Astronomy -

- Data reduction and analysis of observations taken from Fermi Gamma-ray Space Telescope.

X-ray Astronomy -

- Data reduction and analysis of observations taken from SWIFT, XMM-Newton, NuStar.

Optical Astronomy -

- Extensive observations of Active Galactic Nuclei (AGNs) with 1-m and 3-m class telescopes
- Data reduction and analysis
- Proficient in using data reduction software and analysis tools: IRAF, DAOPHOT, IDL
- Archival data: SWIFT observations, Steward Observatory (SO) spectropolarimetric observations

Near-Infrared Astronomy:

- Archival data: SMARTS consortium, SWIFT data sets
- Modeling the optical-NIR SEDs
- Developed 'PyONEER toolkit,' i.e., Python Optical & NEar infrarEd Reduction toolkit for fast and efficient data reduction.

Radio Astronomy:

- Blazar observations from Giant Metre Radio Telescope (GMRT), Pune.
- Gained preliminary experience in handling data in Radio wavelengths using AIPS & CASA.

Multi-wavelength Astronomy:

- Developed a piece-wise gaussian fit technique to analyze long-term light curves (LCs) of AGNs to study dynamical evolution, the inner sub-parsec structure, radiation mechanisms, and location of radiating regions.
- Developed a package of time series analysis which consists of the periodogram, Lomb-Scargle periodogram, structure-function, discrete correlation technique, multi-harmonic analysis of variance periodogram, and the wavelet analysis, which is being used to analyze AGN LCs to determine the PSD shape, presence of a quasi-periodic oscillation, times of existence, duration and number of cycles of the QPO, the evolution of the QPO during the observation duration
- Developed 'PyONEER toolkit,' i.e., Python Optical & NEar infrarEd Reduction toolkit for fast and efficient data reduction from any optical-NIR telescope
- Modeling multi-wavelength spectral energy distributions of AGNs using GAMERA to understand the emitting region, discriminate between various theoretical models and put tight constraints on those model parameters that are likely to change

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REFEREEING

- Active referee for:
  International Journals: Monthly Notices of the Royal Astronomical Society (MNRAS), Astronomy & Astrophysics (A&A) and Astrophysical Journal (ApJ).
  Indian Journal: Journal of Astronomy and Astrophysics.
  Indian Telescope facilities: 2-m Himalayan Chandra Telescope (HCT) at the Indian Astronomical Observatory (IAO), Hanle, and 3.6m Devasthal Optical Telescope, Devasthal.

MENTORING/TEACHING

- Mentoring Mohit Singh Bisht, PhD student at the Indian Centre for Space Physics, Kolkata, India, for his PhD thesis projects related to 'Spectral and temporal variability of blazars on diverse timescales'. We are already working on a paper related to his thesis and two more are in the pipeline.
- Mentoring Abhishek Gautam, BTech - Electronics and Communications student at the Maulana Azad National Institute of Technology, Bhopal, India, for his BTech project based on 'Investigating flare properties in the TeV blazars.'
- Mentoring Swarnendu Jana, M.Sc. Physics student at Raiganj University, West Bengal, India, for his M.Sc thesis project based on 'Exploring SMARTS blazars on short to long timescales'.
- Co-mentoring Eslam Elhosseiny, PhD student at the National Research Institute of Astronomy and Geophysics (NRIAG), Cairo, Egypt, for his PhD thesis projects based on 'Temporal and spectral study of blazars on diverse timescales' under supervision of Ali Takey, Associate professor at NRIAG.
- Mentored Reshma Manivannan, M.G.R college, Hosur, for her research projects on 'Exploring UV properties of blazars using ASTROSAT' under the supervision of Prof. C.S. Stalin (IIA). Later, she got selected for PhD program at Christ University. We are now working on two papers based on the results.
- Mentored a group of students (Yugum Bharti; Vishi Aggarwal; Ashwani Pandey) for their internship/research projects on 'The study of blazar properties using Multi-wavelength data' carried out under the supervision of my Thesis advisor Dr. Alok Gupta, in ARIES, India, from 2015 – 2017.
- Mentored Mr. Avik Kumar Das and Mr. Sandeep Kumar Mondal, Ph.D. students at RRI (under the supervision of Prof. Nayantara Gupta), in understanding computing concepts, basic algorithmic skills, practicing various multi-wavelength data analysis techniques, and developing/implementing interesting theoretical AGN models.
- Mentored Ms. Ayushi Chippa, M.Sc student, University of Delhi, for her dissertation on 'The Unification scheme of Active Galactic Nuclei (AGNs)' under the supervision of Prof. T. R. Seshadri (DU). Now she is enrolled in the Ph.D. program at the Indian Institute of Astrophysics.
- Mentored Ms. Simran Joharle, a B.Sc. student at the Fergusson College (Pune), in understanding the basics of AGNs useful for her ongoing project on the optical studies of BL Lacertae. She is now pursuing a Master's thesis at the Max Planck Institute for Astronomy, and we have started working on a paper in collaboration.
- Teaching assistant for optical data analysis in the ARIES Training School (ATSOA) during 2013 - 2015. I was also a member of the Local Organizing Committee (LOC) in ATSOA.

Science Outreach

- Conducted interactive science sessions in the following schools inspiring students to pursue STEM (Science, Technology, Engineering, and Mathematics) fields, followed by a planetarium show on ”Our Hot and Energetic Universe’. Also, developed hands-on experiments and demonstrations to make science more tangible and exciting for young minds.
  1. Literacy India, Gurgaon, on 7th November 2023
  2. DPS, Bahadurgarh, Gurgaon, on 12th December 2023
  3. Shalom Presidency School, Gurgaon, 19th January 2024
  4. Kendriya Vidyalaya, Pitampura, 7-8th February 2024
  5. Kendriya Vidyalaya, Shalimar Bagh, 9th February 2024
- Organized full-day planetarium shows on 6th November 2023, providing immersive experiences for students and teachers of grades V to XII from Rabindranath World School, Gurgaon, to explore the wonders of the cosmos.
- Organised (9th September 2023) science popularisation event at the Centre for Cosmology and Science Popularization (CCSP), Gurgaon for school students and teachers of grades 6 to 10 from Xion International Convent school. More than 150 students and educators attended the event.
- Organised a 2-day (4-5th July 2023) science popularisation event titled ”Cosmic Odyssey: Embark on an Astronomical Adventure” at the Centre for Cosmology and Science Popularization (CCSP), Gurgaon for school students and teachers of grades 6 to 10. More than 350 students and educators attended the event.
- Organised planetarium shows throughout the day using a mobile planetarium set up at the Centre for Cosmology and Science Popularization (CCSP), Gurgaon, on 7th July 2023 for 400 students and teachers from Ryan International School, Gurgaon (Sector 31).
- Motivated teachers and kids from various schools in/around Delhi and Nainital, such as Kendriya Vidyalaya, St. Xavier’s, etc., to pursue a career in Astronomy & Astrophysics during various career counseling sessions organised by schools.
- Conducted Science exhibition and cultural events (2-3 days) in Kendriya Vidyalaya, Delhi branch in 2015.
- Conducted night sky watching with a telescope at Chiguru Farm, Bilikal Forest, Karnataka, during 2017-2019.
- Delivered several public lectures in schools and public events on various astronomy topics like ‘Origin of the universe,’ ‘Life of a star,’ ‘SpaceX,’ etc. (2013-2019).
- Played an active role in the “ARIES Science Popularization and Outreach Program,” organizing various activities for night-sky observations for school children and the general public.

References

- Prof. Paul J. Wiita: The College of New Jersey, USA
- Prof. Sergio A. Cellone, Prof. Ileana Andruchow, Prof. Luis Mammana, Dr. Lorena C. Zibecchi: CASLEO, San Juan, Argentina
- Prof. Staszek Zola: Astronomical Observatory, Krakow, Poland
- Prof T. R. Seshadri: Department of Physics and Astrophysics, University of Delhi
- Prof. G. C. Anupama, Prof. Arun Mangalam, Prof. C. S. Stalin, IIA Bengaluru, India.
- Prof. Ali Takey, National Research Institute of Astronomy and Geophysics (NRIAG), 11421 Helwan, Cairo, Egypt
- Prof. Alok C. Gupta: ARIES, Nainital.
- Prof. Nayantara Gupta, RRI Bengaluru, India
- Prof. M. Böttcher: Center for Space Research, North-West University, South Africa
- Asst. Prof. B. Mihov, Dr. L. Slavcheva-Mihova: Institute of Astronomy and NAO, Sofia, Bulgaria
- Asst. Prof. Aykut Özdönmez: Ataturk University, Turkey

Achievements

- Heading science outreach at CCSP since May 2023.
- Coordinator of Visitor Program, CCSP, SGT University, May 2023-till date
- Awarded the IUCAA's Visiting Associateship for three years, 2023 - 2026.
- Awarded funding of Rs. 204140.00 by IUCAA to organize the workshop ASTROCOSMOCON 2023.
- Organized a 3-day national level workshop (AstroCosmoCon) for B.Sc and M.Sc students from October 26−Oct 28, 2023.
- Organized a 3−day international conference (Cosmology@CCSP_2) from Nov 30 − Dec 2, 2023.
- Ongoing Indo-Turkey project titled "Investigation of frequency and time-dependent optical variability of BL Lac type blazars on diverse timescales" funded by the Scientific and Technological Research Council of Turkey (TÜBİTAK).
- Awarded 3-year postdoctoral position at the Center for Theoretical Physics, Warsaw, Poland, with Prof. Bozena Czerny (did not accept, instead joined RRI as a postdoctoral fellow).
- Awarded a travel grant of 1800 USD by TMT Early-Career Initiative (TECI), California, USA.
- Awarded "young researcher" award during the Conference on 'Half a Century of Blazars and Beyond,' Torino, Italy, 11 June - 15 June 2018.
- Awarded 2-year National Post Doctoral Fellowship by SERB, Govt. of India, in 2017.
- Awarded 2-year Junior Research Fellowship in 2012 and a 3-year Senior Research Fellowship in 2014 by the Department of Science and Technology (DST).
- Cleared BARC-2012.
- Qualified GATE 2012 with rank-362, for admission to premier research institutes in India.

COMPUTER SKILLS

- Operating System: Linux, Windows
- Astronomy Packages: IRAF, IDL, Astronomical Image Processing Software (AIPS), Fermi Science tools and FermiPy, HEASoft, NuSTARDAS
- Plotting Tools: Supermongo, GNUPLOT, Matplotlib
- Programming: MATLAB, AWK, *Mathematica*, Pascal, Fortran, C++, Python, Scikit-learn, Pandas, NumPy
- Technical skills: Expertise in data reduction of various space-based telescopes such as ASTROSAT, XMM Newton, SWIFT XRT/UVOT, Fermi, NuSTAR, Good exposure to observing and functional aspect of the GMRT, Working knowledge of AIPS and CASA, Expertise in observations from ground-based 1m - 3m class optical/NIR telescopes, Expertise in writing observation and funding proposals, Expertise in numerical modeling and simulation.

Talks, Conferences & Schools

- Conference on seven years of Astrosat, Bangalore, India, 28-29 September 2022.
- 7th Heidelberg International Symposium on High-Energy Gamma-Ray Astronomy, Barcelona, Spain, 04 - 08 July 2022.
- Astro-floor one-Day workshop, Raman Research Institute, Bangalore, 04 May 2022.
- National Workshop Astrophysical jets and observational facilities National perspective, 05-09 April 2021 (Online).
- 4m International Liquid Mirror Telescope (ILMT) held via Zoom platform during 29, 30 June, and 01 July 2020.
- 37^{th} Annual Meeting of the Astronomical Society of India (ASI), at Christ (Deemed to be University) at Bengaluru during 18 - 22 February.
- TMT Early-Career Workshop, Pasadena, California, USA, December 2-9, 2018.
- Neighbourhood Astronomy Meeting (NAM) – 2018: held at Indian Institute of Astrophysics, Bangalore, India
- Conference on 'Half a Century of Blazars and Beyond,' Torino, Italy, 11 June - 15 June 2018.
- Workshop on 'Data Analysis & LAXPC Science,' TIFR, India: 18 Jan - 21 Jan 2017
- Conference on 'Wide Band Spectral and Timing Studies of Cosmic X-ray Sources,' TIFR, India: January 10 - 13, 2017.
- 1^{st} BINA workshop, ARIES, Nainital, India: 15 Nov - 18 Nov 2016.
- Blazars through Sharp Multi-Wavelength Eyes, Malaga, Spain: 30 May - 3 June 2016.
- Jet Triggering Mechanisms in Black Hole Sources at TIFR, Mumbai during Jan 20-23, 2016
- Cloudy Workshop at IUCAA, Pune during 21 – 26 September 2015.
- Radio Astronomy School-2015 (RAS-2015), at the National Centre for Radio Astrophysics (NCRA-TIFR), Pune, from Aug 31 - Sept 11, 2015.
- Meeting on 'Recent Trends in the study of Compact Objects - Theory and Observation' at ARIES, Nainital, in May 2015.
- 33^{rd} meeting of the Astronomical Society Of India (ASI2015), at IUCAA, Pune, during Feb 2015.
- International workshop on Transients, at IUCAA, Pune, on 16th Feb 2015.
- National symposium on VHE GAMMA-RAY ASTRONOMY, at BARC, Mumbai, during Nov 2013.
- Conference on ACCRETION ONTO BLACK HOLES, at International Center, Goa, during Sept 2013.
- Aries Training School of Observational Astronomy (ATSOA) Aries Training School of Observational Astronomy (ATSOA).
- Talk on Discoveries in Astrophysics in 2010, organized at Department of Physics and Astrophysics, University of Delhi.
- National symposium: Indian physics and mega projects, DSK center for research and innovation in science education held in Miranda House, DU from 2^{nd} Feb, 09 to 3^{rd} Feb, 09. Here I learned about the frontiers of String theory.

ORAL/POSTER PRESENTATIONS

- Oral presentation at ARIES, Nainital in August 2013.
- Oral presentation at ARIES, Nainital in July 2014.
- Oral presentation at Department of Physics, Gorakhpur University in 2014.
- Oral seminar at ARIES, Nainital in August 2014.
- Poster presentation in ASI-2015, at IUCAA, Pune, during Feb 2015.
- Poster presentation in RETCO-2015 at ARIES, Nainital, during May 2015.
- Oral seminar at ARIES, Nainital in August 2015.
- Oral presentation in Jet triggering workshop at TIFR, Mumbai, during Jan 20-23, 2016.
- Oral presentation at Department of Physics, Gorakhpur University in 2016.
- Poster presentation in JETS2016, Malaga, Spain, 30 May - 3 June 2016.
- Poster & Oral presentation in 1^{st} BINA workshop 2016, ARIES, India, 15 Nov - 18 Nov 2016.
- Oral presentation in the Conference on Wide Band Spectral and Timing Studies of Cosmic X-ray Sources, TIFR, India: January 10 - 13, 2017.
- Oral presentation in Blazars&Beyond, Torino, Italy, 11 June - 15 June 2018.
- Poster presentation in TMT Early-Career Workshop, Pasadena, California, USA, during December 2-9, 2018.
- Poster presentation in 37^{th} Annual Meeting of the Astronomical Society of India (ASI), Christ (Deemed to be University), Bengaluru, 18 - 22 February.
- Oral seminar at Raman Research Institute (RRI), Bangalore, 3rd June 2019.
- Oral presentations in 'Very Sirius Meetings' (VSM) at the Astronomy and Astrophysics Division, Raman Research Institute, Bangalore.
- Oral seminar in the Seminar Series of Astrophysics and Cosmology conducted by IRC, Delhi University, 15 June 2020.
- Oral seminar in the Astro-floor one-Day workshop, Raman Research Institute, Bangalore, 04 May 2022.
- Poster presentation in 7th Heidelberg International Symposium on High-Energy Gamma-Ray Astronomy, Barcelona, Spain, 04 - 08 July 2022.
- Poster presentation during the Conference on seven years of Astrosat, Bangalore, India, 28-29 September 2022.
- Oral seminar at the Centre for Cosmology and Science Popularization, SGT University, Gurgaon, India, 24 November 2022.

PLACE: Delhi
DATE: June 16, 2026

ADITI AGARWAL

List of Publications

Refereed

1. **Aditi Agarwal**, V. Agrawal, S. Zola, Swarnendu Jana, M. S. Bisht, A. Raj, V. Kouprianov, Daniel E. Reichart, D. B. Caton, James W. Dawidson
   Multiband flux and spectral variability study of the flaring activity in BL Lacertae during its 2020 outburst, 2025, MNRAS, 537, 2586–2601

2. M Reshma, **Aditi Agarwal**, CS Stalin, Prajwel Joseph, Akanksha Dagore, Amit Kumar Mandal, Ashish Devaraj, SB Gudennavar
   Ultraviolet flux and spectral variability study of blazars observed with UVIT/AstroSat, 2024, ApJ, 975, 6

3. E Ege, A Özdönmez, **A Agarwal**, T Ak
   Investigating Optical Variability of the Blazar S5 0716+ 714 on Diverse Timescales, 2024, ApJ, 971, 74

4. E Ege, A Özdönmez, **A Agarwal**, T Ak
   Optical Multi-band Variability of the Blazar S5 0716+ 714, 2024, EAS2024, 2402

5. Ashish Raj, Mohit Singh Bisht, FM Walter, R Pandey, CE Woodward, DE Harker, Devendra Bisht, HP Singh, **A Agarwal**, Jeewan Pandey, Arti Joshi, K Belwal, Christian Buil
   The dusty aftermath of a rapid nova: V5579 Sgr, 2024, PASA, 41, e051

6. Rishank Diwan, Raj Prince, **Aditi Agarwal**, Debanjan Bose, Pratik Majumdar, Aykut Özdönmez, Sunil Chandra, Rukaiya Khatoon, Ergün Ege
   Multi-wavelength study of TeV blazar 1ES 1218+304 using gamma-ray, X-ray and optical observations, 2023, MNRAS, 524, 4333

7. **Agarwal, Aditi**
   Classification of blazar candidates of unknown type in Fermi 4LAC by unanimous voting from multiple Machine Learning Algorithms, 2023, ApJ, 946, 109

8. **A. Agarwal**; B. Mihov; V. Agrawal; S. Zola; Aykut Ozdonmez; Ergun Ege; L. Slavcheva-Mihova; D.E Reichart; D.B. Caton; and Avik Kumar Das
   Analysis of the intra-night variability of BL Lacertae during its August 2020 flare, 2023, ApJS, 265, 51

9. **Agarwal, Aditi**; Pandey, Ashwani, Ozdonmez, Aykut ; Ege, Ergun; Das, Avik; Karakulak, Volkan
   Characterizing the optical nature of the blazar S5 1803+784 during its 2020 flare, 2022, ApJ, 933, 42

10. Priya, Shruti; Prince, Raj; **Agarwal, Aditi**; Bose, Debanjan; Ozdonmez, Aykut; Ege, Ergun
    Multi-wavelength temporal and spectral analysis of Blazar S5 1803+78, 2022, MNRAS, 513, 2239

11. Singh, K. P.; Kushwaha, P.; Sinha, A.; Pal, Main; **Agarwal, A.**; Dewangan, G. C
Spectral States of OJ 287 blazar from Multiwavelength Observations with AstroSat, 2022, MNRAS, 509, 2696

12. **Agarwal, Aditi**; Mihov, B. ; Andruchow, I. ; Cellone, Sergio A.; Anupama, G. C.; Agrawal, V.; Zola, S.; Özdönmez, Aykut ; Ege, Ergün
Optical flux and spectral characterization of the blazar PG 1553 + 113 based on the past 15 years of data, 2022, JApA, 43, 9

13. Prince, Raj ; Raman, Gayathri ; Khatoon, Rukaiya ; **Agarwal, Aditi**; Varun ; Gupta, Nayantara ; Czerny, Bozena ; Majumdar, Pratik
A comprehensive study of 2019-2020 flare of OJ 287 using AstroSat, Swift, and NuStar, 2021, MNRAS, 508, 315

14. Prince, Raj;**Agarwal, Aditi** Gupta, Nayantara; Majumdar, Pratik; Czerny, Bozena; Cellone, Sergio A.; Andruchow, I.
Multi-wavelength Analysis and Modeling of OJ 287 During 2017-2020, 2021, A&A, 654, 38

15. **Agarwal, Aditi**; Rani, Priyanka; Prince, Raj; Stalin, C. S.; Anupama, G. C.; Agrawal, Vipul
A Possible Quasi-Periodic Oscillation in the X-ray Emission of 3C 120, Galaxies 2021, 9, 20.

16. **Agarwal, Aditi**; Mihov, B.; Andruchow, I.; Cellone, S. A.; Anupama, G. C.; et al.;
Multi-band behavior of the TeV blazar PG 1553+113 in optical range on diverse timescales, 2021, A&A 645, A137

17. **Agarwal, Aditi**; Mihov, B.; Andruchow, I.; Cellone, S. A.; Anupama, G. C.; et al.;
VizieR Online Data Catalog: BVRI light curves of PG 1553+ 113 (Agarwal+, 2021), J/A+ A/645/A137

18. **Agarwal, Aditi**; Cellone, Sergio A.; Andruchow, Ileana; Mammana, Luis; Singh, Mridweeka; Anupama, G. C.; Mihov, B. et al.;
Multiband optical variability of 3C 279 on diverse time-scales, 2019, MNRAS, 488, 4093

19. **Agarwal, Aditi**,
Multi-band optical variability studies of Blazar, 2018, Bulletin de la Societe Royale des Sciences de Liege, 87, 321

20. Ghosal, B; Singh, K. K.; Yadav, K. K.; Tickoo, A. K.; et al. (including **Agarwal, Aditi**);
Search for very high energy gamma-ray emission from the peculiar radio galaxy IC 310 with TACTIC during 2012 to 2015, 2018, NewA, 60, 42

21. Kushwaha, Pankaj; Gupta, Alok C.; Wiita, Paul J.; et al. (including **Agarwal, Aditi**);
Multiwavelength temporal and spectral variability of the blazar OJ 287 during and after the 2015 December flare: a major accretion disc contribution, 2018, MNRAS, 473, 1145

22. Gupta, Alok C.; Mangalam, Arun; Wiita, Paul J.; Kushwaha, P.; et al. (including **Agarwal, Aditi**);
A peculiar multiwavelength flare in the blazar 3C 454.3, 2017, MNRAS, 472, 788

23. **Agarwal, Aditi**; Mohan, P.; Gupta, Alok C.; Mangalam, A.; Volvach, A. E.; Aller, M. F.; Aller, H. D.; Gu, M. F.; Lähteenmäki, A.; Tornikoski, M.; Volvach, L. N.,
Core shift effect in blazars, 2017, MNRAS, 469, 813

24. Gupta, A. C.; **Agarwal, Aditi**; Mishra, A.; Gaur, H.; Wiita P. J.; Gu M. F.; et al.
Multiband optical variability of the blazar OJ 287 during its outbursts in 2015 – 2016, 2017, MNRAS, 465, 4423

25. Gupta, A. C.; **Agarwal, Aditi**; Bhagwan, J.; Strigachev, A.; Bachev, R.; Semkov,E.; Gaur, H.; Damljanovic, G.; Vince, O.; Wiita, Paul J.;
Multi-band optical variability of three TeV Blazars on Diverse Timescales, 2016, MNRAS, 458, 1127

26. **Agarwal, Aditi**; Gupta, A. C.; Bachev, R.; Strigachev, A.; Semkov,E.; Wiita, Paul J.; Fan, J. H.; Pandey, U. S.; Boeva, S.; Spassov, B.,
Multiband optical variability of the blazar S5 0716+714 in outburst state during 2014−2015, 2016, MNRAS, 455, 680

27. Gaur, H.; Gupta, A. C.; Bachev, R.; Strigachev, A.; Semkov, E.; Wiita, P. J.; Volvach, A. E.; Gu, M. F.; **Agarwal, A.**; Agudo, I.; Aller, M. F.; Aller, H. D.; Kurtanidze, O. M.; Kurtanidze, S. O.; Lähteenmäki, A.; Peneva, S.; Nikolashvili, M. G.; Sigua, L. A.; Tornikoski, M.; Volvach, L. N. ;
Optical and radio variability of BL Lacertae, 2015, A&A, 582, A103

28. Mohan, P.; **Agarwal, Aditi**; Mangalam, Arun; Gupta, A. C.; Wiita, Paul J.;
Frequency-dependent core shifts and parameter estimation for the blazar 3C 454.3, 2015, MNRAS, 452, 2004

29. **Agarwal, Aditi**; Gupta, A. C. ; Bachev, R. ; Strigachev, A. ; Semkov,E. ; Wiita, Paul J.; Bottcher, M. ; Boeva, S. ; Gaur, H.; Gu, M. F.; Peneva, S.; Ibryamov, S.; and Pandey, U. S.,
Multiband optical–NIR variability of blazars on diverse time-scales, 2015, MNRAS, 451, 3882

30. Hayashida, M.; Nalewajko, K.; Madejski, G. M.; Sikora, M.; et al. (including **Agarwal, Aditi**);
Rapid variability of blazar 3C 279 during flaring states in 2013-2014 with joint Fermi-LAT, NuSTAR, SWIFT, and ground-based multi-wavelength observations, 2015, ApJ, 807, 79

31. **Agarwal, Aditi**; Gupta, A. C.,
Multiband optical variability studies of BL Lacertae, 2015, MNRAS, 450, 541

32. **Agarwal, Aditi**; Gupta, A. C.,
Optical–NIR variability of blazars on diverse timescales, 2015, ASI Conference Series for RETCO II, 12, 141

Conference Proceedings

1. Kushwaha et al. 2021 (including **Agarwal, Aditi**),
AstroSat View of Blazar OJ 287: A complete evolutionary cycle of HBL Component from end-phase to disappearance and Re-emergence, 37th International Cosmic Ray Conference (ICRC 2021)

2. **Agarwal, Aditi**,
   Multiwavelength studies of Active Galactic Nuclei over diverse timescales, 2018, COSPAR, 42E, 33A

3. **Agarwal, Aditi**,
   Frequency dependent core shift effect in blazars, 2018, COSPAR, 42E, 32A

4. **Agarwal, Aditi**,
   Frequency-dependent core shifts and parameter estimation in Blazars, 2016, COSPAR, 41E, 38

ATel

1. R Prince, R Khatoon, **Aditi, Agarwal**,
   Swift XRT/UVOT follow-up of the recent optical activity of blazar BL Lacertae (No. 14774)

2. **Aditi, Agarwal**,
   Optical follow-up observations of the blazar PG 1553+113 (No. 12635)

3. **Aditi, Agarwal**; Avinash Singh, Brajesh Kumar,
   Multiband photometric observations of the flat spectrum radio quasar 4C 38.41 (No. 12034)

Submitted

1. **Agarwal, Aditi**; B. Mihov; Ileana Andruchow; Sergio A. Cellone; et al.
   Multi-band optical flux and spectral variability of BL Lacertae on diverse timescales; Submitted to ApJ Supplement Series

In preparation

1. **Agarwal, Aditi** et al.
   Flux and spectral variability studies of Active Galactic Nuclei from intraday to long timescales

2. **Agarwal, Aditi** et al.
   PG1553+113 through multi-wavelength eyes

3. **Agarwal, Aditi** et al.
   Optical variability of the peculiar TeV gamma-ray Active Galactic Nucleus IC 310

4. **Agarwal, Aditi**; A. Shukla; G. C. Anupama; Nibedita, Kalita; M. Bottcher; Wiita, Paul J.,
   Multi-wavelength Spectral Energy Distribution of TeV blazars