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Curriculum Vitae

Dr. Pramod K. Pawar

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Previous Position

Research Experiance: **3 Year**

Postdoc Fellow (April 2018 - July 2021) at **Inter University Center for Astronomy and Astrophysics, Pune, India**
Brief description: As a postdoc, I was closely involved in the **AGN science with ASTROSAT** observatory with the aim to disentangle between the various X–ray/optical/UV SED models. Being part of the SXT telescope calibration team, I was also involved in improving the response of the SXT telescope and data, pipeline validation.

Teaching Experiance: **1 Year**

Education

Exam	Univ/Board	Year	Subjects	Obtained %	Class/Grade
SSC	Latur Board	2000	General	60.80 %	Grade I
HSC	Latur Board	2002	PCMB	65.83 %	Grade I
UG	SRTM University, Nanded	2007	Physics, Chemistry, Computer science	64.87 %	Grade A
PG	SRTM University, Nanded	2009	Physics	7.55 CGPA	Grade B+
PhD	SRTM University, Nanded	2018	Physics		
NET	CSIR, India	2010	Physics		
SET	Pune University	2009	Physics		

PhD Thesis

Correlation between optical and X–ray variability of active galactic nuclei.

Thesis Advisor: **Prof. M. K. Patil**
School of Physical Sciences,
S. R. T. M. University, Nanded (MH), India

Research Interests

Observational astronomy, Active galactic nuclei, Compact objects, X-ray detectors

Publications in Refereed Journals

(1) "Complex UV/X–ray variability of 1H 0707–495"; **P. K. Pawar**, G. C. Dewangan, I. E. Papadakis, M. K. Patil, M. Pal, and A. K. Kembhavi; 2017, MNRAS, 472, 2823; doi: 10.1093/mnras/stx2163

(2) "On the reality of iron Lα lines from the narrow line Seyfert 1 galaxies 1H 0707–495 and IRAS 13224–3809"; **Pramod Pawar**, Gulab Devangan, M. K. Patil, Ranjeev Misra, and Sharda Jogadand; 2016, RAA, 16, 169; doi: 10.1088/1674-4527/16/11/169

(3) "X–ray/UV variability and the origin of soft X–ray excess emission from II Zw177"; Main Pal, Gulab Dewangan, Ranjeev Misra, and **Pramod Pawar**; 2016, MNRAS, 457, 875; doi: 10.1093/mnras/stw009

(4) "Strong soft X-ray excess in 2015 XMM–Newton observations of BL Lac OJ 287"; Main Pal, Pankaj Kushwaha, Gulab Dewangan, and **Pramod Pawar**: 2020, ApJ, 890, 47; doi: 10.3847/1538-4357/ab65ee

(5) "UV to X–Ray Comptonization Delay in Mrk 493"; Oluwashina Adegoke, Gulab Dewangan, **Pramod Pawar**, Main Pal; 2019, ApJL, 870, L13; doi: 10.3847/2041-8213/aaf8ab

(6) "Merging cold front and AGN feedback in the peculiar galaxy cluster Abell 2626 "; Sonali K. Kadam, Satish S. Sonkamble, **Pramod K. Pawar**, Madhav K. Patil; 2019, MNRAS, 484, 4113; doi: x10.1093/mnras/stz144

(7) "The Cadmium Zinc Telluride Imager on AstroSat"; V. Bhalerao, D. Bhattacharya, A. Vibhute, **P. Pawar**, A. R. Rao, and others; 2017, JApA, 38, 31; doi: 10.1007/s12036-017-9447-8

(8) "AstroSat CZT Imager Observations of GRB 151006A: Timing, Spectroscopy, and Polarization Study"; A. R. Rao, V. Chand, M. K. Hinger, **Pramod Pawar**, and others; 2016, ApJ, 833, 86; doi: 10.3847/1538-4357/833/1/86

(9) "Hard X–ray polarimetry with Astrosat–CZTI"; S. V. Vadawale, T. Chattopadhyay, D. Bhattacharya, V. B. Bhalerao, N. Vagshette, **Pramod Pawar**, and S. Sreekumar; 2015, A&A, 578, A73; doi: 10.1051/0004-6361/201525686

(10) "Constraining Distance and Inclination Angle of V4641 Sgr Using Swift and NuSTAR Observations during Low Soft Spectral State"; Mayukh Pahari, Ranjeev Misra, Gulab Dewangan and **Pramod Pawar**; 2015, ApJ, 814, 158; doi: 10.1088/0004-637X/814/2/158

(11) "X–ray cavities and temperature jumps in the environment of the strong cool core cluster Abell 2390"; S. S. Sonkamble, N. D. Vagshette, **P. K. Pawar**, M. K. Patil; 2015, Ap&SS, 359, 21; doi: 10.1007/s10509-015-2508-z

(12) "Long–term optical and *gamma*−ray variability of the blazar PKS 1222+216 "; Savithri H, Amit Shukla, G. C. Dewangan, **P. K. Pawar**, Sushmita Agarwal, Mathew Blesson, Krishna R, Akhil.; 2022, ApJ, 939, 76; doi: 10.3847/1538-4357/ac9627

(13) "A search for X-ray/UV correlation in the reflection–dominated Seyfert 1 galaxy Mrk 1044"; Samuzal Barua, Oluwashina Adegoke, Ranjeev Misra, **Pramod Pawar**, V. Jithesh, Biman Medhi.; 2023, ApJ, 958, 46; doi: 10.3847/1538-4357/acf464

(14) "Sloshing and spiraxl structures breeding a putative radio mini-halo in the environment of a cool-core cluster, Abell 795"; S. K. Kadam, Sameer Salunkhe, N. D. Vagshette, Surajit Paul, S. S. Sonkamble, **P. K. Pawar**, M.K. Patil; 2024, MNRAS, 531, 4060; doi: 10.1093/mnras/stae1401

(15) "Cool-core, X-ray cavities, and cold front revealed in RXCJ0352.9+1941 cluster by Chandra and GMRT observations"; S. S. Sonkamble, S. K. Kadam, Surajit Paul, M. B. Pandge, **P. K. Pawar**, M.K. Patil.; 2024, JApA, 45, 23; doi: 10.1007/s12036-024-10008-w

Talks/Papers/Posters presented in National and International Conferences

1. Talk at **Hard X − ray Astronomy: Astrosat and Beyond** organized by Tata Institute of Fundamental Research (TIFR) and held at Goa, September 24–26, 2014.

2. Talk at **Science with LAXPC/ASTROSAT** organized and held by Tata Institute of Fundamental Research (TIFR) Balloon Facility, Hyderabad, December 15–17, 2014.

3. **X–ray/UV variability of narrow–line Seyfert 1 galaxies**; G. C. Dewangan, P. K. Pawar & Main Pal in the Recent Trends in the Study of Compact Objects (RETCO-II): Theory and Observation held at ARIES, Nainital during May 6–8, 2015.

4. **Complex Optical/UV to X–ray spectral variability of 1H 0419–577**; Main Pal, G. C. Dewangan, R. Misra & P. K. Pawar in the Recent Trends in the Study of Compact Objects (RETCO-II): Theory and Observation held at ARIES, Nainital during May 6–8, 2015.

5. **Origin of the soft excess emission from Narrow Line Seyfert 1 (NLS1) galaxies**; P. K. Pawar, G. C. Dewangan, & M. K. Patil, in the 29th Meeting of the Astronomical Society of India held at P. Ravishankar Shukla University, Raipur (CG) during 23–25 February, 2011.

6. Presented poster entitled "X–ray and optical/UV variability of NLS1 1H 0707–495"; P. K. Pawar, G. C. Dewangan, & M. K. Patil, in the 33rd Meeting of the Astronomical Society of India held at National Center for the Radio Astronomy of TIFR, Pune (MH) during 17–20 February, 2015.

7. Presented poster entitled "Correlation between X–ray and UV/Optical variability in NLS1 1H 0707–495"; P. K. Pawar, G. C. Dewangan, & M. K. Patil in the 29th IAU General Assembly, 2015.

8. "AGN Feedback in strong cool core cluster Abell 2390"; S. S. Sonkamble, N. D. Vagshette, P. K. Pawar, & M. K. Patil in the XXXIII Meeting of Astronomical Society of India, held at NCRA, Pune, during 17–20 February, 2015.

Seminar / Workshop / Schools attended

1. "AHEAD X-ray and Multi-wavelength Surveys School", held at Max-Planck-Institut für extraterrestrische Physik, Garching, Munich, Germany during November 19–23, 2018.

2. "Workshop on AstroSat data Analysis" held at IUCAA, Pune during November 13–26, 2017.

3. "CLOUDY Workshop" held at IUCAA, Pune during September 21–26, 2015.

4. National symposium on "Applied Spectroscopy in Science and Technology" held at School of Physical Sciences, S. R. T. M. University, Nanded during March 21–22, 2014.

5. "Winter School on High Energy Astrophysics: Accretion onto Compact Objects" held at the Harish – Chandra Research Institute, Allahabad during February 6–18, 2012.

6. "Advanced Research Workshop on X–ray Timing held at IUCAA, Pune during January 3–28, 2012.

7. "National workshop on Galaxies : Normal & Active held at School of Physical Sciences, S. R. T. M. University, Nanded during November 14–17, 2011.

8. "IGO training school in Observational Astronomy held at IUCAA, Pune during December 20, 2010 – January 15, 2011.

9. "Conference on Wideband X – ray Astronomy: Frontiers in Timing and Spectroscopy" held at IUCAA, Pune during January 13–16, 2011.

10. Workshop on Advanced Statistical Techniques for Astronomy held at IUCAA, Pune during October 4–8, 2010.

Skills

1. Experience of "Astronomical Data Analysis" using image processing software, such as, XMM–SAS, HEASOFT, XSPEC, IRAF, CIAO, etc.

2. Expertise in **proposing, planning and carrying out observations** from optical telescopes, such as, 2m–class telescope of IUCAA Girawali Observatory and multi–wavelength satellites like Astrosat and XMM–Newton.

3. Experience of programing languages such as Python, IDL, BASH. Working knowledge of Linux/Window operating systems.

Fellowships & Awards

1. Qualified National Entrance Test (NET) and awarded with Junior Research Fellowship for the period of 2010–2015 by the Council of Scientific & Industrial Research (CSIR), India.

References

1. **Prof. M. K. Patil**, S.R.T.M.University, Nanded, MH, India
Email: patil@associates.iucaa.in

2. **Prof. Gulab Chand Dewangan**, IUCAA, Pune, India
Email: gulabd@iucaa.in

3. **Prof. Iossif Papadakis**, Department of Physics, University of Crete, Heraklion, Greece
Email: jhep@physics.uoc.gr

4. **Prof. A. R. Rao**, Department of Astronomy and Astrophysics, TIFR, Mumbai, India
Email: arrao@tifr.res.in; a.raghu.rao@gmail.com