Prantik Nandi

Scientist C

✉ prantiknandiphy@gmail.com ☎ **+91 9836616686** **Astronomy & Astrophysics**

Indian centre for Space physics, 466 Barakhola, Netai Nagar, Kolkata-700099.

■ Personal Details

Date of birth: 24th November, 1991

Address: 185, Rabindra Sarani, South Masunda, New Barrackpore. P.S.-New Barrackpore. Kolkata, 700131. West Bengal, India.

■ Current Position

Current – Mar. 2024 : Indian centre for Space physics, Kolkata, West Bengal, India.

- **Scientist C.**
- Area of Research: AGNs, Blazars, CLAGNs, LLAGNs, Neutron Stars, X-ray astronomy, Accretion Disk

■ Research Experiences

Mar. 2024 – Feb. 2024 : Physical Research Laboratory, Ahmedabad, Gujarat, India.

- **Visiting Research Fellow.**
- Area of Research: AGNs, Blazars, CLAGNs, BHXRB, Neutron Stars, X-ray astronomy, Accretion Disk

Jan. 2024 – Jan. 2022 : Physical Research Laboratory, Ahmedabad, Gujarat, India.

- **Post Doctoral Fellow.**
- Area of Research: AGNs, Blazars, CLAGNs, LLAGNs, Neutron Stars, X-ray astronomy, Accretion Disk

Jan. 2022 – Aug. 2021 : S. N. Bose National Centre for Basic Sciences, Kolkata, India.

- **Visiting Research Fellow.**
- Area of Research: AGNs, Blazars, Broadband emission, Disk-Jet connection

Jul. 2021 – Aug. 2016 : S. N. Bose National Centre for Basic Sciences, Kolkata, India.

- **Senior Research Fellow** *(Aug. 2018 – Jul. 2021)*
- **Junior Research Fellow** *(Aug. 2016 – Jul. 2018)*
- Area of Research: AGNs, XRBs, Disk-Jet connection, Astrophysics, Accretion disk, X-ray Astronomy

Jul. 2014 – Aug. 2013 : Presidency University, Kolkata, India.

- M.Sc. Project
- Area of Research: Blazar, High energy Astrophysics, γ−ray, Jet, Accretion disk, X-ray Astronomy

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■ Education

Jul. 2021 – Aug. 2016 : S. N. Bose National Centre for Basic Sciences, Kolkata, India.

- Ph.D in Astrophysics
  - −Thesis Title: Spectral and Temporal Properties of Super-Massive Black Holes in light of Two Component Advective Flows.

Jul. 2014 – Aug. 2012 : Presidency University, Kolkata, India.

- M.Sc. in Physics with specialisation in Astrophysics
- 69%; 1st Class
  - −M.Sc. Project Title: Probing Accretion disk/jet connection in Blazars using γ−ray variability

Jul. 2012 – Aug. 2009 : University of Calcutta, Kolkata, India.

- B.Sc. in Physics
- 61.125%; 1st Class

■ Skills

Operating Systems: Linux, Windows
Astronomical Software Packages: HEAsoft, SAS, FTOOL, NUSTARDAS, Ds9
Computational Packages: GNUplot, Xmgrace, Fotran, Python, C++, LATEX
X-ray satellite used: XMM-Newton, NuSTAR, Suzaku, Swift, RXTE, Fermi Nicer, Chandra, CASA
Languages: English, Bengali, Hindi

■ National Exam Qualifications

- NET, CSIR-JRF, June-2015, Rank-36.
- WBSET, Lectureship, June-2014.

■ Conferences and Workshops

03 Apr.– 05 Apr. 2023: Recent Trends in the Study of Compact Objects: Theory and Observation (RETCO-V), KSO, Tmilnadu, India
− Oral Presentation- A survey on nearby bare AGNs.

18 Aug.– 20 Jul. 2020: Workshop on high energy data analysis, IIT Bombay, Mumbai, Maharashtra, India

21 Apr.– 16 Apr. 2019: Recent Trends in the Study of Compact Objects: Theory and Observation (RETCO-IV), IUCAA,

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Pune, Maharashtra, India
- Poster Presentation- Spectal and Temporal properties of Seyfert 1 AGNs under the light of TCAF.

08 Feb.– 02 Feb. 2019: Multi-wavelength Sky Observations - AstroSat and Beyond, IIT Indore, Indore, Madhya Pradesh, India
- Workshop on AstroSat data analysis
- Oral Presentation- Spectral properties of NGC 4151 during NuSTAR observations.

■ Publications

• **Peer-Reviewed Journal:**

Published/Accepted: **14**
Submitted: **1**
In Preperation: **3**

Published/Accepted:

1. **Long-term X-ray temporal and spectral study of a Seyfert galaxy Mrk 6**, by Layek, N., **Nandi, P.**, Naik, S., Kumari, N., Jana, A., Chhotaray,B., 2023. NMRAS, 528 (3), 5269-5285.

2. **Long-term Study of First Galactic Ultraluminous X-ray Source Swift J0243.6+6124 Using NICER**, by Chhotaray, B., Jaisawal, G. K., **Nandi, P.**, Naik, S., Kumari, N., 2023, ApJ, 963 (2), 132.

3. **Survey of Bare Active Galactic Nuclei in the local universe (z < 0.2): I. On the origin of Soft-Excess,** by **P. Nandi,** A. Chatterjee , A. Jana, S. K. Chakrabarti, S. Naik, S. Safi-Harb , H. K. Chang, J. Heyl, 2023, ApJS, 269 (1), 15.

4. **Coronal properties of low-accreting AGNs using Swift, XMM–Newton, and NuSTAR observations,** by A. Jana, A. Chatterjee, H-K Chang, **P. Nandi,** K. Rubinur, N. Kumari, S. Naik, S. Safi-Harb, C. Ricci, 2023, MNRAS, 524 (3), 4670-4687.

5. **Investigation of a small X-ray flaring event in NLS1 galaxy NGC 4051,** by N. Kumari, A. Jana, S. Naik, **P. Nandi,** 2023, MNRAS, 521 (4), 5440-5452.

6. **Absorption Variability of the Highly Obscured Active Galactic Nucleus NGC 4507,** by A. Jana, C. Ricci, S. Naik, A. Tanimoto, N. Kumari, H-K. Chang, **P. Nandi,** A. Chatterjee, S. Safi- Harb, 2022. MNRAS, 512 (4), 5942-5959

7. **Broadband spectro-temporal study on blazar TXS 1700+685,** by A. Banerjee, **P. Nandi,** R. Prince, R. Khatoon, D. Bose, 2022, MNRAS, 515, 4675–4684.

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8. **Broadband X-ray Observation of the 2018 outburst of Changing-look Active Galactic Nucleus NGC 1566,** by A. Jana, N. Kumari, **P. Nandi,** S. Naik, A. Chatterjee, G. K. Jaisawal, K. Hayasaki, C. Ricci, 2021, MNRAS, 507 (1), 687-703

9. **Long term X-Ray Observations of Seyfert 1 Galaxy Ark 120: On the origin of soft- excess,** by **P. Nandi,** A. Chatterjee, S. K. Chakrabarti, B. G. Dutta, 2021, MNRAS, 506, 3111–3127

10. **Probing the nuclear and circumnuclear properties of NGC 6300 using X-ray observations,** by A. Jana, A. Chatterjee , N. Kumari, **P. Nandi,** S. Naik, D. Patra, 2020, MNRAS, 499, 5396-5409

11. **Time-domain variability properties of XTE J1650-500 during its 2001 outburst: evidence of disc-jet connection,** by A. Chatterjee, B. G. Dutta, **P. Nandi,** S. K. Chakrabarti, 2020, MNRAS, 497, 4222-4230

12. **Evidence of Outflow-induced Soft Lags of Galactic Black Holes,** by D. Patra, A. Chatterjee, B. G. Dutta, S. K. Chakrabarti, **P. Nandi,** 2019, ApJ, 886

13. **Spectral Properties of NGC 4151 and the Estimation of Black Hole Mass Using TCAF Solution,** by **P. Nandi,** S. K. Chakrabarti, S. Mondal, 2019, ApJ, 877, 65

14. **Physical inference from the γ-ray, X-ray, and optical time variability of a large sample of Fermi blazars,** by A. Majumder, K. Mitra, R. Chatterjee, C. M. Urry, C. D. Bailyn, **P. Nandi,** 2019, MNRAS, 490, 124-134.

Publications in Journal Proceedings

1. **Accretion around low mass and supermassive black holes with TCAF**, by S. Mondal, . K. Chakrabarti, **P. Nandi**, 2022, The Fifteenth Marcel Grossmann Meeting on General Relativity, World Scientific Publishing Co. Pte. Ltd., 2022. ISBN #9789811258251, pp. 231-236

2. **A similar accretion disk dynamics in bare-type AGN Ark 120 and Galactic black hole binaries**, by B. G. Dutta, **P. Nandi**, A. Chatterjee, S. Mondal, 2022, 44th COSPAR Scientific Assembly, Abstract E1.6-0027-22.

3. **Discovery of Jet Induced Soft Lags of XTE J1550-564 during its 1998 outburst**, by A. Chatterjee, B. G. Dutta, D. Patra, S. K. Chakrabarti, **P. Nandi**, 2019, Proceedings of Universe, 17, 8. (arXiv:1911.04085).

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Chapter in books

1. Chapter **"Study of broadband Spectra of AGNs Using Two Component Advective Flow Paradigm"** in Springer Book "*Exploring the Universe: From Near Space to Extra-Galactic*", Editors: Banibrata Mukhopadhyay & Sudipta Sasmal, 2018, ASSP, 53, 283 (DOI: 10.1007/978-3-319-94607-8) [Book ISBN: 978-3-319-94606-1 (hardcopy); 978-3-319-94607-8 (ebook)]

Submitted:

1. **The accretion properties of a low-mass Active Galactic Nucleus: UGC 6728,** by **P. Nandi,** S Naik, A. Chatterjee, S. K. Chakrabarti, S. Safi-Harb, N. Kumari, 2023, NMRAS [In Communication].

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