

# Rebecca Kyer

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## Education

MICHIGAN STATE UNIVERSITY

Ph.D. Candidate, Astrophysics and Astronomy

M.S., Astrophysics and Astronomy

East Lansing, MI

Nov 2024 – present

Aug 2022 – Nov 2024

UNIVERSITY OF WASHINGTON

B.S., Physics and Astronomy

Astronomy Departmental Honors

Seattle, WA

Jun 2021

## Publications

### Refereed

5. "Investigating four new eclipsing binary millisecond pulsars discovered in the image plane." Petrou, F., Hurley-Walker, N., McSweeney, S. et al (incl. **Kyer, R.**), submitted to PASA
4. "Multiwavelength Evidence for Two New Candidate Transitional Millisecond Pulsars in the Sub-luminous Disk State: 4FGL J0639.1–8009 and 4FGL J1824.2+1231." **Kyer, R.**, Roy, S., Strader, J., et al. 2025, ApJ, 983, 112
3. "A survey for radio emission from white dwarfs in the VLA Sky Survey." Pelisoli, I., Chomiuk, L., Strader, J., et al. (incl. **Kyer, R.**) 2024, MNRAS, 531, 1805
2. "Monitoring the X-ray variability of bright X-ray sources in M33." **Kyer, R.**, Albrecht, S., Williams, Benjamin F., et al. 2024, ApJ, 961, 168
1. "Revisiting the classics: on the evolutionary origin of the 'Fe II' and 'He/N' spectral classes of novae." Aydi, E., Chomiuk, L., Strader, J. et al. (incl. **Kyer, R.**) 2024, MNRAS, 527, 9303

### Non-refereed

"Unlocking the Rapid X-ray Variability of Transitional Millisecond Pulsars." **Kyer, R.**, Ng, M., Coti Zelati, F. et al. 2025, GO Science Case for the proposed NASA AXIS Probe, in prep

"Catching Spiders with AXIS." Coti Zelati, F., An, H., Baglio, M. C. et al. (incl. **Kyer, R.**) 2025, GO Science Case for the proposed NASA AXIS Probe, in prep

Transient Name Server Classification Report No. 2024-2571, classification of SN 2024pxg as a SN II. Bostroem, K. A., **Kyer, R.**, Strader, J. et al. 2024

Various classification reports in The Astronomer's Telegram (No. 16583, 16440, 16294)

## Telescope Time

XMM-Newton AO-24 proposal ID 096163, 57 ksec, Scientific PI	2025
Swift Target of Opportunity ID 21032, 8.5 ksec, PI	Aug 2024
Swift Target of Opportunity ID 20572, 3.8 ksec, PI	June 2024
150+ hours remote observing with the 4.1-m SOAR telescope	2023–present

## Research Presentations

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Vasto Accretion Meeting Talk (Vasto, Italy)	June 2025
AXIS Community Science Meeting Talk (Annapolis, MD)	May 2025
Int'l Symposium of Science with the SOAR Telescope Talk (East Lansing, MI)	May 2025
ESAC XMM-Newton Science Workshop Poster (Madrid, Spain)	June 2024
Compact Objects in Michigan and Ontario Talk (Dearborn, MI)	May 2024

## Research Advising Experience

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Andrew Harms (MSU), co-advised with Ryan Urquhart	May 2025–present
Subhroja Roy (MSU), Bachelor's Senior Thesis	May 2024–May 2025

## Technical Skills

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Optical photometry and single slit spectroscopy acquisition, reduction and analysis; X-ray reduction and analysis; certified Green Bank Telescope remote observer; synthesis of large multiwavelength archival and survey datasets.

**Software:** Python, IRAF, SAOImage DS9, CIAO, xspec, pimms

## Outreach Activities

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Letters to a Pre-Scientist Penpal	Oct 2024–May 2025
Astronomy on Tap Speaker (Lansing, MI)	Nov 2023, Apr 2025
Campus Observatory Public Night Volunteer (East Lansing, MI)	Aug 2022–present

## Professional Service

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NASA AXIS CO/SNR Working Group Member	Dec 2024–present
P-A Research Experiences for Drew Scholars Junior Director	Apr 2024–present
Faculty Search Committee Graduate Student Representative	Feb 2024
Stellar Mentorship Program Coordinator and Peer Mentor	Aug 2023–present
Astro Coffee Journal Club Organizer	Jun 2023–present

## Teaching Experience

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Teaching Assistant AST 208: Planets and Telescopes (30 students; MSU)	Jan–May 2024
Teaching Assistant ISP 205L: Visions of the Universe (400 students; MSU)	Aug 2022–Dec 2023
Instructor GEN ST 199: Astronomy First-year Interest Group (30 students; UW)	Sep–Dec 2020

## Awards and Honors

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Honorable Mention, NSF Graduate Research Fellowship	Apr 2024
Graduate Teaching Assistant Award, MSU Physics and Astronomy	Apr 2024, Apr 2023
Harlo Mervyn Mork Excellence in Teaching Award, MSU College of Natural Science	Nov 2023