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Publication List

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9 first (or co-first) author publications, 34 co-author publications, 2 ATels

h-index = 16, total citations = 850+

First Author Publications.....

[9] **Masterson, M.**, Kara, E., et al. 2025, *Persistence of the Millihertz X-ray Quasi-Periodic Oscillation in the Active Galactic Nucleus 1ES 1927+654*, submitted to ApJ. [arXiv:2604.16688](https://arxiv.org/abs/2604.16688)

[8] Chakraborty*, J., **Masterson***, M., Mummery, A., et al. 2025, *X-ray Spectral-Timing Properties of Tidal Disruption Events*, accepted for publication in ApJ. [arXiv:2602.16868](https://arxiv.org/abs/2602.16868) (*indicates co-first authors)

[7] **Masterson, M.**, De, K., et al. 2025, *JWST's First View of Tidal Disruption Events: Compact, Accretion-Driven Emission Lines & Strong Silicate Emission in an Infrared-selected Sample*, ApJL, 988, 2, L48. [doi:10.3847/2041-8213/ade153](https://doi.org/10.3847/2041-8213/ade153)

[6] **Masterson, M.**, Kara, E., et al. 2025, *Millihertz Oscillations Near the Innermost Orbit of a Supermassive Black Hole*, Nature, 638, 370–375. [doi:10.1038/s41586-024-08385-x](https://doi.org/10.1038/s41586-024-08385-x)

[5] **Masterson, M.**, De, K., et al. 2024, *A New Population of Mid-Infrared-Selected Tidal Disruption Events: Implications for Tidal Disruption Event Rates and Host Galaxy Properties*, ApJ, 961, 211. [doi:10.3847/1538-4357/ad18bb](https://doi.org/10.3847/1538-4357/ad18bb)

[4] **Masterson, M.**, Kara, E., et al. 2023, *Unusual Hard X-ray Flares Caught in NICER Monitoring of the Binary SMBH Candidate AT2019cuk/Tick Tock/SDSS J1430*, ApJL, 945, L34. [doi:10.3847/2041-8213/acbea9](https://doi.org/10.3847/2041-8213/acbea9)

[3] **Masterson, M.**, McDonald, M., et al. 2023, *Evidence for AGN-Regulated Cooling in Clusters at $z \sim 1.4$: A Multi-Wavelength View of SPT-CL J0607-4448*, ApJ, 944, 164. [doi:10.3847/1538-4357/aca9e](https://doi.org/10.3847/1538-4357/aca9e)

[2] **Masterson, M.** & Reynolds, C.S. 2022, *Probing the Extent of Fe K α Emission in Nearby AGN Using Multi-Order Analysis of Chandra High Energy Transmission Grating Data*, ApJ, 936, 66. [doi:10.3847/1538-4357/ac83ae](https://doi.org/10.3847/1538-4357/ac83ae)

[1] **Masterson, M.**, Kara, E., et al. 2022, *Evolution of a Relativistic Outflow and the X-ray Corona in the Extreme Changing-Look AGN 1ES 1927+654*, ApJ, 934, 35. [doi:10.3847/1538-4357/ac76c0](https://doi.org/10.3847/1538-4357/ac76c0)

Co-Author Publications.....

[34] Sánchez-Sáez, P., **Masterson, M.**, et al. 2026, *Spatially resolved optical and mid-infrared spectroscopy of SDSS1335+0728: implications for the origin of the Ansky event*, submitted to A&A. [arXiv:2607.00921](https://arxiv.org/abs/2607.00921)

[33] Sadaula, D. et al. (including **Masterson, M.**) 2026, *The emergence of X-ray emission lines during relativistic radio-jet formation in the changing-look active galactic nucleus 1ES 1927+654*, accepted for publication in ApJ. [arXiv:2607.05246](https://arxiv.org/abs/2607.05246)

[32] Nair, P., Panagiotou, C., **Masterson, M.**, et al. 2026, *A Suppressed Volumetric Rate of High-luminosity Mid-infrared Selected Tidal Disruption Events*, ApJ, 1007, 1, 40. [doi:10.3847/1538-4357/ae83a1](https://doi.org/10.3847/1538-4357/ae83a1)

[31] Vega, J. et al. (including **Masterson, M.**) 2026, *Ghosts of eruptions past: Searching for historical Galactic supernovae using variable thermal dust echoes and machine learning*, submitted to ApJ. [arXiv:2604.08686](https://arxiv.org/abs/2604.08686)

[30] Wang, M. et al. (including **Masterson, M.**) 2026, *Testing the Association of Supermassive Black Hole Infrared Flares and High-energy Neutrinos*, ApJL, 998, 1, L29. [doi:10.3847/2041-8213/ae3f90](https://doi.org/10.3847/2041-8213/ae3f90)

[29] De, K. et al. (including **Masterson, M.**) 2026, *Fading into darkness: A weak mass ejection and low-efficiency fallback accompanying black hole formation in M31-2014-DS1*, submitted to ApJL. [arXiv:2601.05774](https://arxiv.org/abs/2601.05774)

[28] Berger, V. et al. (including **Masterson, M.**) 2026, *Disk-to-Corona State Transition and Extreme X-ray Variability in the Tidal Disruption Event AT2019teq*, accepted in ApJ. [arXiv:2601.04311](https://arxiv.org/abs/2601.04311)

[27] Zaidouni, F. et al. (including **Masterson, M.**) 2026, *XRISM finds the Changing-Look AGN NGC 1365 in an extended low state: A dense, highly ionized outflow obscures the central source*, ApJL, 997, 1, L26. [doi:10.3847/2041-8213/ae307d](https://doi.org/10.3847/2041-8213/ae307d)

[26] Neights, E. et al. (including **Masterson, M.**) 2026, *GRB 250702B: Discovery of a Gamma-Ray Burst from a*

Black Hole Falling into a Star, MNRAS, 545, 2, staf2019. doi:[10.1093/mnras/staf2019](https://doi.org/10.1093/mnras/staf2019)

[25] Golay, W. et al. (including **Masterson, M.**) 2026, *Radio Emission from the Infrared Tidal Disruption Event WTP14adeqka: The First Directly Resolved Delayed Outflow from a TDE*, ApJ, 1007, 1, 88. doi:[10.3847/1538-4357/ae8536](https://doi.org/10.3847/1538-4357/ae8536)

[24] Baldini, P. et al. (including **Masterson, M.**) 2025, *A new Bowen Fluorescence Flare and Extreme Coronal Line Emitter discovered by SRG/eROSITA*, A&A, 701, A224. doi:[10.1051/0004-6361/202554812](https://doi.org/10.1051/0004-6361/202554812)

[23] Arcodia, R. et al. (including **Masterson, M.**) 2025, *SRG/eROSITA No. 5: Discovery of quasi-periodic eruptions every ~ 3.7 days from a galaxy at $z > 0.1$* , ApJ, 989, 1, 13. doi:[10.3847/1538-4357/ade9b](https://doi.org/10.3847/1538-4357/ade9b)

[22] Grotova, I. et al. (including **Masterson, M.**) 2025, *The population of tidal disruption events discovered with eROSITA*, A&A, 697, A159. doi:[10.1051/0004-6361/202553669](https://doi.org/10.1051/0004-6361/202553669)

[21] Chakraborty, J. et al. (including **Masterson, M.**) 2025, *Rapidly varying ionization features in a Quasi-periodic Eruption: a homologous expansion model for the spectroscopic evolution*, ApJ, 984, 2, 124. doi:[10.3847/1538-4357/adb972](https://doi.org/10.3847/1538-4357/adb972)

[20] Chakraborty, J. et al. (including **Masterson, M.**) 2025, *Discovery of Quasi-periodic Eruptions in the Tidal Disruption Event and Extreme Coronal Line Emitter AT2022upj: implications for the QPE/TDE fraction and a connection to ECLEs*, ApJL, 983, 2, L39. doi:[10.3847/2041-8213/adc2f8](https://doi.org/10.3847/2041-8213/adc2f8)

[19] Yao, Y. et al. (including **Masterson, M.**) 2025, *Distinguishing Tidal Disruption Events and Changing-look Active Galactic Nuclei via Variation of Mid-infrared Color*, ApJS, 281, 1, 7. doi:[10.3847/1538-4365/ae047a](https://doi.org/10.3847/1538-4365/ae047a)

[18] Earl, N. et al. (including **Masterson, M.**) 2025, *AT 2020nov: Evidence for Disk Reprocessing in a Rare Tidal Disruption Event*, ApJ, 983, 1, 28. doi:[10.3847/1538-4357/adb974](https://doi.org/10.3847/1538-4357/adb974)

[17] Rani, B. et al. (including **Masterson, M.**) 2025, *High-Frequency Power Spectrum of AGN NGC 4051 Revealed by NICER*, ApJL, 981, 1, L18. doi:[10.3847/2041-8213/adace8](https://doi.org/10.3847/2041-8213/adace8)

[16] Grotova, I. et al. (including **Masterson, M.**) 2025, *eRO-ExTra: eROSITA extragalactic non-AGN X-ray transients and variables in eRASS1 and eRASS2*, A&A, 693, A62. doi:[10.1051/0004-6361/202451253](https://doi.org/10.1051/0004-6361/202451253)

[15] Laha, S. et al. (including **Masterson, M.**) 2025, *Multi-wavelength observations of a jet launch in real time from the post-changing-look Active Galaxy 1ES 1927+654*, ApJ, 981, 2, 125. doi:[10.3847/1538-4357/adaea0](https://doi.org/10.3847/1538-4357/adaea0)

[14] Meyer, E. et al. (including **Masterson, M.**) 2025, *Emergence of a radio jet in the changing-look AGN 1ES 1927+654*, ApJL, 979, 1, L2. doi:[10.3847/2041-8213/ad8651](https://doi.org/10.3847/2041-8213/ad8651)

[13] García, J. et al. (including **Masterson, M.**) 2024, *The high energy X-ray probe (HEX-P): science overview*, FrASS, 11, 1471585. doi:[10.3389/fspas.2024.1471585](https://doi.org/10.3389/fspas.2024.1471585)

[12] De, K. et al. (including **Masterson, M.**) 2024, *The disappearance of a massive star marking the birth of a black hole in M31*, accepted for publication in Science, arXiv:[2410.14778](https://arxiv.org/abs/2410.14778)

[11] Li, R. et al. (including **Masterson, M.**) 2024, *The Interplay between the Disk and Corona of the Changing-look Active Galactic Nucleus 1ES 1927+654*, ApJ, 975, 140. doi:[10.3847/1538-4357/ad7aed](https://doi.org/10.3847/1538-4357/ad7aed)

[10] Zhang, Z. et al. (including **Masterson, M.**) 2024, *Modeling X-Ray Multi-Reflection in Super-Eddington Winds*, ApJ, 977, 2, 157. doi:[10.3847/1538-4357/ad86c0](https://doi.org/10.3847/1538-4357/ad86c0)

[9] Myers, C. et al. (including **Masterson, M.**) 2024, *WTP19aalnxx: Discovery of a bright mid-infrared transient in the emerging class of low luminosity supernovae revealed by delayed circumstellar interaction*, ApJ, 976, 230. doi:[10.3847/1538-4357/ad8922](https://doi.org/10.3847/1538-4357/ad8922)

[8] Pasham, D. et al. (including **Masterson, M.**) 2024, *A Case for a Binary Black Hole System Revealed via Quasi-Periodic Outflows*, Science Advances, 10, 13. doi:[10.1126/sciadv.adj8898](https://doi.org/10.1126/sciadv.adj8898)

[7] Wang, Y. et al. (including **Masterson, M.**) 2024, *Rapid dimming followed by a state transition: a study of the highly variable nuclear transient AT 2019avd over 1000+ days*, ApJ, 962, 78. doi:[10.3847/1538-4357/ad182b](https://doi.org/10.3847/1538-4357/ad182b)

[6] Kammoun, E., Lohfink, A. M., **Masterson, M.**, et al. 2024, *The High Energy X-ray Probe (HEX-P): Probing the physics of the X-ray corona in active galactic nuclei*, FrASS, 10, 1308056. doi:[10.3389/fspas.2023.1308056](https://doi.org/10.3389/fspas.2023.1308056)

[5] Brightman, M. et al. (including **Masterson, M.**) 2024, *The High Energy X-ray Probe (HEX-P): Sensitive broadband X-ray observations of transient phenomena in the 2030s*, FrASS, 10, 1292656. doi:[10.3389/fspas.2023.1292656](https://doi.org/10.3389/fspas.2023.1292656)

[4] Panagiotou, C., De, K., **Masterson, M.**, et al. 2023, *A Luminous Dust-Obscured Tidal Disruption Event Candidate*

in a Star Forming Galaxy at 42 Mpc, ApJL, 948, L5. [doi:10.3847/2041-8213/acc02f](https://doi.org/10.3847/2041-8213/acc02f)

[3] Kara, E. et al. (including **Masterson, M.**) 2023, *UV/Optical disk reverberation lags despite a faint X-ray corona in the AGN Mrk 335*, ApJ, 947, 62. [doi:10.3847/1538-4357/acbcd3](https://doi.org/10.3847/1538-4357/acbcd3)

[2] Xu, Y. et al. (including **Masterson, M.**) 2022, *Ejection-Accretion Connection in NLS1 AGN 1H 1934-063*, MNRAS, 513, 1910. [doi:10.1093/mnras/stac1058](https://doi.org/10.1093/mnras/stac1058)

[1] Chakraborty, J., Kara, E., **Masterson, M.**, et al. 2021, *Possible X-ray Quasi-Periodic Eruptions in a Tidal Disruption Event Candidate*, ApJL, 921, L40, ApJL, 921, L40, [doi:10.3847/2041-8213/ac313b](https://doi.org/10.3847/2041-8213/ac313b)

ATels.....

[2] Hamada, R., et al. (including **M. Masterson**) 2024, *PRIME discovery of a heavily reddened classical nova PRIME24aadwvh at the Galactic center*, [ATel#16824](https://atlas.astronomy.ohio-state.edu/ATel/16824)

[1] Pasham, D., et al. (including **M. Masterson**) 2022, *AT2019cuk/SDSSJ1430/ZTF18aarippg: High-cadence NICER and NuSTAR X-ray observations of the potential supermassive black hole binary with imminent merger (the tick-tock source)*, [ATel#15225](https://atlas.astronomy.ohio-state.edu/ATel/15225)