XIN XIANG (CINDY)

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EDUCATION

University of Michigan - Ann Arbor *Aug 2022 - May 2027 (expected)*
Ph.D. in Astronomy and Astrophysics *Supervised by Dr. Jon M. Miller*

Georgia Institute of Technology *2019 - 2022*
B.S. in Physics - Astrophysics Concentration (with highest honor) Overall GPA: 4.0/4.0
Minor in Computer Science - Intelligence

PUBLICATIONS

ORCID: 0000-0002-7129-4654 | ADS Library

5 first author publications, 9 co-author publications, 5 ATels
h-index: 7; total citations: 225 (ADS Library, October 2026)

First or Second-Author

1. Xiang, X., Miller, J. M., et al. XRISM Spectroscopy of Variable Accretion-driven Disk Winds in NGC 4151: When, Where, and How Fast Outflows are Launched. ApJ 1009, 172 (2026).

2. Miller, J. M., **Xiang, X.**, et al. The 0.9 Ms XRISM/Resolve Spectrum of the Seyfert 1 Active Galactic Nucleus NGC 4151. ApJL 1003, L34 (2026).

3. Xiang, X., Miller, J. M., et al. Multi-layered Fast Wind observed in XMM-Newton snapshot of Seyfert 1 Markarian 877. ApJ 995, 184 (2025).

4. Miller, J. M., **Xiang, X.**, et al. XRISM/Resolve Spectroscopy of the Central Engine in the Seyfert-1 AGN Mrk 279. ApJL 994, L10 (2025).

5. Xiang, X., Miller, J. M., et al. XRISM Spectroscopy of Accretion-driven Wind Feedback in NGC 4151. ApJL 988, L54 (2025).

6. Xiang, X., Miller, J. M., et al. Investigating the Mass of the Black Hole and Possible Wind Outflow of the Accretion Disk in the Tidal Disruption Event AT2021ehb. ApJ 972, 106 (2024).

7. Xiang, X., Ballantyne, D. R., et al. REXCOR: a model of the X-ray spectrum of active galactic nuclei that combines ionized reflection and a warm corona. MNRAS 515, 353–368 (2022).

8. Ballantyne, D. R. & **Xiang, X.** Sustaining a warm corona in active galactic nucleus accretion discs. MNRAS 496, 4255–4265 (2020).

Co-Author Publications

1*. Ketchum, S., et al. incl. **Xiang, X.** X-ray Flaring and Variability in NGC 1275, the Heart of the Perseus Cluster. ApJL 1008, L28 (2026).

2. Mehdipour, M., et al. incl. **Xiang, X.** Dissecting the Nuclear Structure of NGC 5548 with XRISM. I. Physical Properties of the Highly Ionized Outflows. ApJ 1008, 56 (2026).

3. Miller, J. M., Zoghbi, A., **Xiang, X.**, et al. Reverberation in the Narrow Fe Kα Line in the Seyfert Galaxy NGC 4151 with XRISM. ApJL 1005, L48 (2026).

4. Miller, J. M., et al. incl. **Xiang, X.** XRISM Spectroscopy of the Stellar-mass Black Hole GRS 1915+105. ApJL 995, L14 (2025).

*Undergraduate-led project; I served as a research mentor to the first author.

5. XRISM Collaboration et al. incl. **Xiang, X.** XRISM Spectroscopy of the Fe Kα Emission Line in the Seyfert Active Galactic Nucleus NGC 4151 Reveals the Disk, Broad-line Region, and Torus. ApJL 973, L25 (2024).

6. Miller, J. M., et al. incl. **Xiang, X.** Evidence of a Massive Stellar Disruption in the X-Ray Spectrum of ASASSN-14li. ApJL 953, L23 (2023).

Astronomer's Telegrams

I have contributed to five Astronomer's Telegrams reporting time-sensitive X-ray and multiwavelength activity, most led by undergraduate students whom I mentored. These include the historically high UV/X-ray state of NGC 1275 (ATel 18085), the potential Ca-rich SN 2025coe (ATel 17138), Mrk 1310 (ATel 16932), SS Cyg (ATel 16933), and dust-scattering rings following flaring from GRS 1915+105 (ATel 15976).

APPROVED OBSERVING PROPOSALS

JWST Cycle 5 GO 11687 – 10 hr – $128k	**PI**
EXHALE: Expelling the X-ray High-energy Winds to Infrared-traced Galactic-scale Feedback – Tracing Multiphase Outflows in Mrk 877	
Magellan 2026A – Half night	**PI**
XRISM Cycle 2, GRS 1915+105,150 ks	Co-I
XRISM Cycle 1, NGC 4151, 360 ks	Co-I
XRISM Cycle 1, Mrk 279, 150 ks	Co-I
XRISM Cycle 1, GRS 1915+105, 39 ks	Co-I

TALKS

Invited Talks

AstroCoffee Talk, Institute for Advanced Study, Princeton, NJ.	December 7, 2026
High Energy Group meeting, MIT Kavli Institute, MA.	December 3, 2026
UMBRELA Dialogue Talk, Center for Astrophysics | Harvard-Smithsonian, MA.	December 1, 2026
KIPAC Tea Talk, Stanford University, Stanford, CA.	October 2, 2026
Astronomy Lunch Talk, Penn State, University Park, PA.	September 6, 2026
Astronomy Tea Talk, Caltech, Pasadena, CA.	June 22, 2026

Contributed Talks

248th AAS meeting Pasadena, CA, "XRISM Spectroscopy of Accretion-driven Wind Variability of NGC 4151: Evidence for state-dependent transient fast outflows ", Oral Presentation, June 16, 2026.

Press Conference of the 248th AAS Meeting, Pasadena, CA, "XRISM Reveals Changing Accretion-Driven Winds in a Nearby Active Galaxy", Oral Presentation, June 15, 2026.

22nd HEAD meeting, Hilton St. Louis at the Ballpark, St. Louis, Missouri, "XRISM spectroscopy of Accretion-driven Wind Feedback in NGC 4151", Oral Presentation, Oct 14th, 2025.

Compact Objects Meeting in Michigan and Ontario, University of Michigan-Flint, "XRISM spectroscopy of Accretion-driven Wind Feedback in NGC 4151", Oral Presentation, September 26th, 2025.

XRISM 7th Science Meeting, Arizona State University, Tempe, Arizona, "Five XRISM X-ray Spectroscopy of the Seyfert AGN NGC 4151: Resolving Variable Multi-layer Warm Absorbers and Fast Outflows", Oral Presentation, February 24th, 2025.

245th AAS Meeting, National Harbor, MD, "Five XRISM X-ray Spectra of the Seyfert AGN NGC 4151: Resolving Variable Multi-layer Warm Absorbers and Fast Outflows", Oral Presentation, January 16, 2025.

XRISM 6th Science Meeting, Tokyo Metropolitan University, Tokyo, Japan, "NGC 4151 Winds: Warm Absorbers and Fast Outflows", Oral Presentation, Sep 27, 2024

Compact Objects Meeting in Michigan and Ontario, Wayne State University, MI, "Chandra High-Resolution X-ray Spectroscopy of the Tidal Disruption Event: AT2021ehb", Oral Presentation, May 12, 2023

MEDIA MENTIONS/PRESS RELEASE

"Revealing How and When a Black Hole's Mighty Winds Can Squash Star Formation,"
University of Michigan News, June 2026.

"Blown Away by the Winds of NGC 4151,"
AAS Nova, August 2025.

HONORS AND AWARDS

Amelia Earhart Fellowship 2026 – $10k *June 2026*
Zonta International

Rackham International Student Fellowship – $14.6k *November 2024*
Rackham Graduate Program, University of Michigan

The 2023 Astronomy Department DEI Champion Award *June 2023*
Department of Astronomy, University of Michigan

President's Undergraduate Research Travel Awards – $1k *December 2022*
Undergraduate Research Opportunities Program, Georgia Institute of Technology

Letson Summer Internship Awards – $5.4k April 2021
The School of Physics, Georgia Institute of Technology

President's Undergraduate Research Salary Awards– $2k April 2020
Undergraduate Research Opportunities Program, Georgia Institute of Technology

TEACHING AND MENTORING EXPERIENCE

Undergraduate Research Mentor *May 2024 - present*
Department of Astronomy, University of Michigan

Sarah Ketchum — *Flares of NGC 1275*
Veronica Tananko — *Spectral variability of Mrk 1310*
Tianyin Hu — *The Ca-rich supernova SN 2025coe*

Graduate Student Instructor *Jan 2023 - Dec 2023*
Department of Astronomy, University of Michigan

- Astronomy 102 - Stars, Galaxies, and the Universe
- Astronomy 142 - From the Big Bang to the Milky Way

Graduate Practice Preliminary Exam Coordinator *August 2024 - May 2025*
Department of Astronomy, University of Michigan

- Lead weekly tutor sessions for the second-years student with their prelim exam.
- Coordinate mock prelim exam with professors.

Undergraduate Teaching Assistant *January 2022 - May 2022*
The School of Physics, Georgia Institute of Technology

- Physics 4347 - Fundamentals of Astrophysics

Mentor / Group Leader / 1-to-1 Tutor *December 2020 - May 2021*
Tutoring and Academic Support, Office of Undergraduate Education, Georgia Institute of Technology

- Conduct evaluations for tutors as general supervision
- Organize and conduct orientation at the beginning of the semester
- Hold 1-to-1 academic tutor sessions for current students at Georgia Tech

VOLUNTEER/SERVICE/OUTREACH

Graduate Student Summer Event Organizer *May 2025 - August 2025*
Department of Astronomy, University of Michigan

· Organize and design weekly cohort building events

Equi-TEA Talk: A Discussion on Women in Astronomy *March 29th 2025*
Department of Astronomy, University of Michigan

FEMMES Coordinator/Volunteer *August 2022 - December 2024*
Department of Astronomy, University of Michigan

· Lead and design lessons and coordinate with FEMMES outreach events.
· Aim to inspire local women+ teenagers to pursue STEM careers.

Mid-Autumn Festival Events: Chang'e Flying to the Moon *Sep 2023, Sep 2024*
Detroit Observatory, University of Michigan

SKILLS/INTERESTS

Computer Science Training	Python, C/C++, Java, Assembly, Fortran, R, Perl
Software & Tools	Matplotlib, NumPy, SciPy, PyTorch, Scikit-learn
	HEAsoft, Xspec, SPEX
Language	Chinese: Native, English: Fluent
Music	Piano Performance Grade 10 (Highest Amateur Level, CMA)
	Grade 5 in Music Theory (Distinction Score, ABRSM)
Sports	Student Pilot (33 hours fly), Rock climbing (5.12b)

PROFESSIONAL REFERENCES

Jon M. Miller, PhD advisor
Douglas Richstone Collegiate Professor of Astronomy
Department of Astronomy, University of Michigan
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W. Niel Brandt
Evan Pugh University Professor and Eberly Family Chair Professor of Astronomy and Astrophysics
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David Ballantyne, Undergraduate advisor
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