

XIN XIANG (CINDY)

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EDUCATION

University of Michigan - Ann Arbor

2022 - present

Ph.D. in Astronomy and Astrophysics

Overall GPA: 3.9/4.0

Supervised by Dr. Jon M. Miller

Research Interest: X-ray Spectroscopy, Tidal Disruption Events, Outflow winds from black hole accretion disks.

Core Courses: The High-energy Astrophysics, The Structure and Content of Galaxies, Stellar Astrophysics I & II, The Extragalactic Universe, Astrophysics of the Interstellar Medium, Modern Astronomical Techniques.

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

Undergraduate Thesis: “Including a Warm Corona in Active Galactic Nucleus Accretion Discs.” *Supervised by Dr. David Ballantyne*

Core Courses: Quantum Mechanics I & II, Classical Mechanics, Thermodynamics, ElectroMagnetostatics, Electrodynamics, General Relativity, Fundamental Astrophysics, Stellar Astrophysics, Statistical Mechanics, Data Science for Physicists, Object-Oriented Programming, Data Structures and Algorithms, Artificial Intelligence, Machine Learning, etc.

PUBLICATIONS

6. **Xiang, X.** et al. XRISM Spectroscopy of Accretion-driven Wind Feedback in NGC 4151. *The Astrophysical Journal* 988, L54 (2025).
5. XRISM Collaboration. et al. XRISM Spectroscopy of the Fe K α Emission Line in the Seyfert Active Galactic Nucleus NGC 4151 Reveals the Disk, Broad-line Region, and Torus. *ApJL* 973, L25 (2024).
4. **Xiang, X.** et al. Investigating the Mass of the Black Hole and Possible Wind Outflow of the Accretion Disk in the Tidal Disruption Event AT2021ehb. *The Astrophysical Journal* 972, 106 (2024).
3. Miller, J. M. et al. Evidence of a Massive Stellar Disruption in the X-Ray Spectrum of ASASSN-14li. *ApJL* 953, L23 (2023).
2. **Xiang, X.** et al. REXCOR: a model of the X-ray spectrum of active galactic nuclei that combines ionized reflection and a warm corona. *Monthly Notices of the Royal Astronomical Society* 515, 353–368 (2022).
1. Ballantyne, D. R. & **Xiang, X.** Sustaining a warm corona in active galactic nucleus accretion discs. *Monthly Notices of the Royal Astronomical Society* 496, 4255–4265 (2020).

TALKS

6. **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.
5. **245th Annual Meeting of the American Astronomical Society** 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.
4. **XRISM 6th Science Meeting**, Tokyo Metropolitan University, Tokyo, Japan, “NGC 4151 Winds: Warm Absorbers and Fast Outflows”, Oral Presentation, Sep 27, 2024
3. **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
2. **239th Annual Meeting of the American Astronomical Society***, Salt Palace Convention Center, Salt Lake City, UT, “Including a Warm Corona within the Inner Accretion Disk of Active Galactic Nuclei”, Poster.
1. **15th Annual Undergraduate Research Spring Symposium**, Georgia Institute of Technology, GA, “Including a Warm Corona in Active Galactic Nuclei accretion discs”, Oral Presentation, April 22, 2021.

HONORS AND AWARDS

Rackham International Student Fellowship (\$13,770) <i>Rackham Graduate Program</i>	<i>November 2024</i> <i>University of Michigan</i>
The 2023 Astronomy Department DEI Champion Award <i>Department of Astronomy</i>	<i>June 2023</i> <i>University of Michigan</i>
Travel Funding Awards (\$1,500) <i>Center for Relativistic Astrophysics</i>	<i>December 2022</i> <i>School of Physics, Georgia Institute of Technology</i>
President’s Undergraduate Research Travel Awards (\$1,000) <i>Undergraduate Research Opportunities Program</i>	<i>December 2022</i> <i>Georgia Institute of Technology</i>
Letson Summer Internship Awards (\$7,200) <i>The School of Physics</i>	<i>April 2021</i> <i>Georgia Institute of Technology</i>
President’s Undergraduate Research Salary Awards (\$1,500) <i>Undergraduate Research Opportunities Program</i>	<i>April 2020</i> <i>Georgia Institute of Technology</i>

TEACHING EXPERIENCE

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| Graduate Student Instructor
<i>Department of Astronomy</i> | <i>Jan 2023 - Dec 2023</i>
<i>University of Michigan</i> |
| · Teaching Assistant and Labs Instructor for Astronomy 102 - Stars, Galaxies, and the Universe | |
| Undergraduate Teaching Assistant
<i>The School of Physics</i> | <i>January 2022 - May 2022</i>
<i>Georgia Institute of Technology</i> |
| · Teaching Assistant for PHYS 4347 - Fundamentals of Astrophysics | |

*Event got canceled due to COVID

Mentor / Group Leader / 1-to-1 Tutor *December 2020 - May 2021*
Tutoring and Academic Support, office of undergraduate education *Georgia Institute of Technology*

- Hold small group meetings and provide training for current 1-to-1 tutors
- Conduct evaluations for tutors as general supervision of group members
- 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 Practice Preliminary Exam Coordinator *August 2024 - present*
Department of Astronomy *University of Michigan*

- Support for the second years with the prelim exam

FEMMES coordinator/volunteer *August 2022 - Present*
Department of Astronomy *University of Michigan*

- Developing lesson plans and coordinating with FEMMES outreach events.
- Aiming to inspire local women+ teenagers to pursue STEM careers.

Mid-Autumn Festival Event *Sep 2023, Sep 2024*
Detroit Observatory *University of Michigan*

- Present Chang'e Flying to the Moon for public audience

Science Specialist Camp Counselor *May 2019 - July 2019*
Camp Newaygo *Newaygo, MI*

- Designed and Led 2 science classes per day for campers
- Head counselor for science cabins with a group of Girls from 7-17 years old

MEMBERSHIP

Member *October 2021 - present*
The American Astronomical Society
AAS High Energy Astrophysics Division

Lifetime Member *Inducted in May 2022*
Sigma Pi Sigma – American honor society for physics and astronomy

SKILLS

Computer Languages	Python, C/C++, Java, Assembly, Fortran
Software & Tools	Matplotlib, NumPy, SciPy, PyTorch, Scikit-learn HEASoft, Xspec, SPEX
Music	Music Sheet Transcript, Piano Performance Piano level 10 certificate (Central Conservatory of Music)
Language	Chinese: Native, English: Proficient