

ZIMING JI

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EDUCATION

Rochester Institute of Technology

08/2022 – present

- **Degree:** Master of Science in Astrophysical Sciences and Technology
- **GPA:** 3.5/4.0

Rensselaer Polytechnic Institute

08/2019 – 05/2022

- **Degree:** Bachelor of Science in Physics & Astronomy
- **GPA:** 3.69/4.0 (major GPA: 3.76/4.0)

RESEARCH PROJECTS

Study of the Behaviors of Time-Variied SEDs emitted by BLRs around SMBBHs

Mar 2023 – present

Advisor: Andy Robinson (Rochester Institute of Technology)

- Simulated the data from supermassive binary black holes simulation with CLOUDY.
- Investigated the behaviors of emission line intensities with respect to the ionization parameters.

Spectroscopic Analysis of OH-Megamaser Galaxy IRAS 11506-3851

Sep 2022 – Mar 2023

Advisor: Andy Robinson (Rochester Institute of Technology)

- Studied the spectrum and specific emission line regions of IRAS 11506-3851.
- Constructed several emission line diagnostic diagrams and kinematic diagrams.
- Investigated the ionization mechanism and velocity field of the interstellar gas.

MHD Waves in Non-uniform Clouds

Sep 2021 – Dec 2021

Advisor: Glenn Ciolek (Rensselaer Polytechnic Institute)

- Studied the formation and propagation of multi-fluid MHD waves' instabilities in non-uniform interstellar molecular clouds.
- Formulated and derived the linearized MHD equations suitable for star-forming interstellar clouds.
- Investigated the ionization mechanism and velocity field of the interstellar gas.

Stellar-Mass Black-Hole Spin Measurements

Jan 2021 – May 2021

Advisor: Dr. Dong (postdoctoral research fellow at Zhejiang University)

- Conducted the data analysis of MAXI J1535-571 using XSPEC, concluding that all the black hole spins are in the range of Kerr limit, where $|a^*| < 1$.
- Composed a research paper that summarized the spin measurements and analyzed the patterns of black hole spins.

PUBLICATIONS

“Stellar-mass Black Hole Spin Measurements and Its Implementation”

2021

Author

- Published in the Journal of Physics: Conference Series (JPCS) (ISSN:1742-6588)

WORK EXPERIENCE.

- **Rochester Institute of Technology**

- *Grader, (PHYS 106) Solar System* Sep 2023 – Dec 2023
- *Teaching Assistant, (PHYS 212) University Physics II* May 2023 – Aug 2023
- *Teaching Assistant, (PHYS 283) Vibrations and Waves* Jan 2023 – May 2023
- *Grader, (PHYS 330) Classical Mechanics* Aug 2022 – Dec 2022

TECHNICAL SKILLS

Programming languages: Python, MATLAB, C++, HTML&CSS

Document preparation: PowerPoint, Excel, Word, LaTeX, Markdown

Version control: GitHub

Terminal languages: Bash, Zsh