

ZIMING JI

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EDUCATION

- | | |
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| Rochester Institute of Technology | 08/2022 – present |
| <ul style="list-style-type: none">• Degree: Master of Science in Astrophysical Sciences and Technology• GPA: 3.5/4.0 | |
| Rensselaer Polytechnic Institute | 08/2019 – 05/2022 |
| <ul style="list-style-type: none">• 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-averaged 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 ratios 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.

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| Rochester Institute of Technology | |
| ○ 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