

Chloe Dufeu
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EDUCATION

Bard College

BA in Physics and Mathematics
Total GPA: 3.48

Annandale-on-Hudson, NY
August 2021 - May 2025

AWARDS

Bard New Generation Scholarship, August 2021 - Present
Bard Physics Prize, May 2024

RESEARCH EXPERIENCE

REU - High Energy Astrophysics

Research Assistant

University of Utah
June - August 2022

I collaborated with Dr. Qi Feng to perform X-ray analysis on NGC 1068 and NGC 4151 using data from the NuSTAR and Swift-XRT telescope. Both Seyfert galaxies have possible evidence for high energy neutrino emissions making them very interesting sources.

Quantum Chemistry/Astrophysics

Research Assistant

Bard College
September 2023 - present

I began my ongoing research work with Dr. Clara Sousa-Silva in the Fall semester of 2023. I am working on improving the spectra network of phosphine Clara worked on for her PhD thesis.

Bard Astrophysics Group

Research Assistant

Bard College
September 2022 - August 2023

I began my astrophysics research work with Dr. Shuo Zhang in the Fall semester of 2022. We analyzed data from the NuSTAR telescope observation of filament F.0173-0.413. We also completed a joint spectral analysis of the NuSTAR data combined with the Chandra data that had been previously analyzed by researcher Daniel Wang.

Observing with Optical Telescopes

Research Assistant

Bard College
September - December 2022

This research group was led by Dr. Harold Haggard and was in preparation for future measurements of the bending of starlight during solar eclipses. During our meetings, we studied General and Special Relativity, Optics in telescopes and eyepieces, while gaining an in-depth understanding of the telescope. I was also in charge of teaching the rest of the group how to use the ASI camera with the goal of understanding all of its capabilities and disadvantages, in order to operate it in an optimal way for our future measurements.

TEACHING EXPERIENCE

Bard College, Bard Math Circle

September 2022 - present

As part of the Bard Math Circle, I provide one-on-one online tutoring sessions with math students anywhere from elementary to high school. I help students deepen their curiosity in math and work with them in any areas they may be struggling in. I find creative and approachable ways for students to engage in math, while helping them gain confidence in their work.

SKILLS

Programming: Python, Matlab, Terminal, Mathematica, and LaTeX.

Data Analysis Tools: DS9, Xspec

REFERENCES

Dr. Shuo Zhang

Assistant Professor of Physics
Michigan State Physics Program
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Dr. Antonios Kontos

Assistant Professor of Physics
Bard College Physics Program
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