Jakob Bindas

University of Pittsburgh

Department of Physics and Astronomy

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# Education

**BS** University of Pittsburgh, Physics and Astronomy May 2023

Undeclared Minor in Computer Science

GPA: 3.511/4.0

# Relevant Coursework

**Galaxies and Cosmology** Spring 2022

Grade: N/A

**Thermodynamics and Statistical Mechanics** Spring 2022

Grade: N/A

**Computational Methods in Physics** Fall 2021

Grade: A

**Intermediate Electricity and Magnetism** Fall 2021

Grade: B+

**Stars; Stellar Structure and Evolution** Fall 2021

Grade: B+

**Wave Motion and Optics** Fall 2021

Grade: A

**Honors Introduction to Astronomy** Spring 2021

Grade: B

**Mechanics** Spring 2021

Grade: A

**Differential Equations** Fall 2020

Grade: A

**Intermediate Thermal and Modern Physics** Fall 2020

Grade: B+

**Modern Physics Measurements** Fall 2020

Grade: A

**Computer Organization and Assembly Language** Summer 2020

Grade: B+

**Data Structures** Summer 2020

Grade: B

**Analytic Geometry and Calculus 3** Spring 2020

Grade: A

**Introduction to Matrices and Linear Algebra** Spring 2020

Grade: B

**Intermediate Programming Using Java** Spring 2020

Grade: A

**Analytic Geometry and Calculus 3** Fall 2019

Grade: A

# Honors and Awards

NASA Pennsylvania Space Grant Consortium Research Scholarship January 2022

Dean’s List Fall 2021

# Research Interests

Stellar evolution, star formation, black holes, gravitational waves, galaxy mergers, exoplanets

# Research Experience

**Undergraduate Research** Fall 2021-Present

Advisor: Prof. Carles Badenes & Christine Mazzola Daher

* Studying core helium burning stars to observe shorter binary companions than otherwise predicted

**Survey of Transiting Extrasolar Planets at University of Pittsburgh**  Fall 2021-Present

Advisor: Prof. Michael Wood-Vasey

* Observe and collect data on stars who are predicted to have an exoplanet in its orbit. Produce light curves from the data to determine if there is an exoplanet in orbit.

# Computer Skills

**Programming Languages**: Java, Python

**Modules for Experiments in Stellar Astrophysics (MESA)**: Able to customize existing packages to produce stellar evolution plots

# Other

University of Pittsburgh Men’s Club Volleyball Fall 2021-Present

Society of Astronautics and Rocketry (SOAR) Fall 2019-Spring 2020

# References

**Prof. Carles Badenes**

Physics and Astronomy

University of Pittsburgh

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**Prof. James Mueller**

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