Connor Matthew Basinger

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Education	**Ohio State University**	*May 2018*
	<u>Bachelor of Science in Astronomy and Astrophysics</u>, Magna Cum Laude, GPA: 3.78	

Research Experience (~3 years)

Large Binocular Telescope Search for Failed Supernovae   *June 2018 - July 2020*
Reduced and analyzed LBT data obtained as part of a survey looking for failed SNe. Analyzed HST and SST data of N6946-BH1. Submitted paper to MNRAS regarding follow-up of the failed SN candidate.

ASAS-SN   *May 2019 - July 2020*
Worked with Drs. Kris Stanek and Chris Kochanek on the All-Sky Automated Survey for Supernovae. Primarily examined data quality and named/released new transients.

Undergraduate Research   *Jan 2017 - May 2018*
Title: *Ages for Low Mass Field Stars.* Created an empirical model with Dr. Donald Terndrup to determine information on the ages of stars from their rotation rates.

Computational Physics Project   *March 2018 - April 2018*
Investigated whether a simple wind law could accurately reproduce the angular momentum evolution of a star compared to the full stellar model.

Publications in Progress

The Search for Failed Supernovae with the Large Binocular Telescope: N6946-BH1, Still No Star
Analyzed new LBT, HST, and SST data of N6946-BH1, our failed SN candidate in NGC 6946. We found that the new data remains consistent with a disappearing star.

Astronomer's Telegrams

ASASSN-19wf: Discovery of A Bright Type Ia Supernova in the TESS Field
Brimacombe J., et al., 2019, ATel, 13093, 1

ASASSN-19vj: Discovery of A Possible Hostless Supernova
Brimacombe J., et al., 2019, ATel, 13061, 1

...and more - currently 37 total - see my ADS page or visit my website

Presentations

Denman Forum   *April 2018*
Presented results from *Ages for Low Mass Field Stars* research project at the Denman Undergraduate Research forum at Ohio State.

SURP   *Aug 2017*
Summer Undergraduate Research Project with the OSU astronomy department. Presented the results of my summer research project to peers and faculty.

Holography Show   *Dec 2016*
Displayed a self-made 3D hologram as part of an art/physics show, explaining the concept of my piece to visitors including world renowned holographers.

Awards

Undergraduate Research Scholarship
Awarded for project: *Ages for Low Mass Field Stars.*

Helen Cowan Book Award
Given to high-achieving freshmen in physics.

Teaching Experience (5 Semesters)	**Astronomy 1142 TA** *Jan - May 2018*

Teaching Experience (5 Semesters)

Astronomy 1142 TA *Jan - May 2018*
Black Holes. Responsibilities included attending lectures, holding office hours, assisting with the preparation, administration, and grading of exams, and conducting a review session before each exam.

Astronomy 1140 TA *Jan - May 2018*
Planets & The Solar System. Responsibilities included attending lectures when necessary to help with demonstrations, holding office hours, and assisting with the preparation and administration of exams.

Astronomy 1101 Lab TA *Jan - Dec 2017*
From Planets to the Cosmos. Responsibilities included setting up and conducting labs with students and grading labs and homework, serving as the instructor for the lab.

Astronomy 1101 Lecture IA *Jan - Dec 2017*
From Planets to the Cosmos. Instructional Aid. Responsibilities included attending class to help as needed and assisting in the preparation and administration of exams.

Astronomy 1101 Lab IA *Jan - Dec 2016*
From Planets to the Cosmos. Instructional Aid. Responsibilities included setting up and conducting labs with students, grading, and familiarizing myself with the labs to prepare to be a TA.

Advanced Coursework

Astron 3350 - Methods of Astronomical Observation & Data Analysis
Astron 4194 - Group Studies - Introduction to presenting in the planetarium
Astron 5681 - Principles of Stellar Evolution & Nucleosynthesis
Astron 5682 - Introduction to Cosmology
Astron 5830 - Observed Properties of Astronomical Systems
Physics 5300 - Theoretical Mechanics
Physics 5400H/5401H - Honors Advanced E&M 1 & 2
Physics 5500H/5501H - Honors Quantum Mechanics 1 & 2
Physics 5600 - Statistical Mechanics
Physics 5700 - Advanced Physics Lab
Physics 6810 - Computational Physics