

KATIE CHAMBERLAIN

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EDUCATION	<i>Ph.D., Astronomy and Astrophysics</i>	May 2023 (Expected)
	<i>M.S., Astronomy and Astrophysics</i> Steward Observatory, University of Arizona, Tucson, AZ Advisor: Gurtina Besla	May 2020 (Expected)
	<i>B.S., Physics</i>	May 2018
	<i>Secondary Major: Mathematics</i> Montana State University, Bozeman, MT Advisor: Nicolas Yunes	
RESEARCH INTERESTS	Extragalactic Astrophysics <ul style="list-style-type: none">- Dwarf galaxy pairs and mergers- Circumgalactic Medium and the Baryon Cycle- Computational astrophysics	
PUBLICATIONS	<i>Frequency-domain waveform approximants capturing Doppler shifts</i> K. Chamberlain , C. Moore, D. Gerosa, N. Yunes Phys. Rev. D 99 , 024025 (2019)	
	<i>Theoretical Physics Implications of Gravitational Wave Observation with Future Detectors</i> K. Chamberlain , N. Yunes Phys. Rev. D 96 , 084039 (2017)	
	<i>Theory-Agnostic Constraints on Black-Hole Dipole Radiation with Multi-Band Gravitational-Wave Astrophysics</i> E. Barausse, N. Yunes, K. Chamberlain Physical Review Letters 116 , 241104 (2016)	
RESEARCH EXPERIENCE	<i>Graduate Research Assistant</i> Steward Observatory, University of Arizona Advisor: Gurtina Besla	2018 - Present
	<i>LIGO Summer Undergraduate Research Fellowship (REU)</i> California Institute of Technology TAPIR Group	Summer 2017
	<i>Undergraduate Research Assistant</i> Montana State University - eXtreme Gravity Institute Advisor: Nicolas Yunes	2015 - 2018
	<i>Research Apprentice</i> Montana Space Grant Consortium	2016 - 2017

**COMPUTER
SKILLS**

Proficient: Python, Mathematica, LaTeX, and gnuplot.
Some experience: Java, HTML, MATLAB, high-performance computing, and bash.

**HONORS,
AWARDS &
GRANTS**

MONTANA STATE UNIVERSITY
Undergraduate Scholars Program Grant 2015 - 2018
Research Travel Grants 2017, 2018
Montana University System Honors Scholarship 2013 - 2017

MONTANA STATE UNIVERSITY PHYSICS DEPARTMENT
Outstanding Graduating Senior in Physics 2018
Outstanding Undergraduate Physics Researcher Award 2017 - 2018
Georgeanne Caughlan Scholarship for Women in Physics 2017 - 2018
John and Marilyn (Milburn) Asbridge Family Physics Scholarship 2015 - 2017

MONTANA STATE UNIVERSITY MATHEMATICS DEPARTMENT
Outstanding Graduating Senior in Math 2018
John L Margaret Mathematics and Science Scholarship 2017 - 2018
Mathematics Department Scholarship for Excellence in Coursework 2014 - 2015

OTHER
American Physical Society Division of Gravitation Travel Award 2018

**TALKS[†] &
POSTERS^{*}**

[†] *Towards a “Kicked” Frequency-Domain Waveform Approximant.*
APS April Meeting.
Columbus, Ohio, April 2018

[†] *Testing Modified Gravity with Future Gravitational Wave Detectors.*
Pacific Coast Gravity Meeting.
California Institute of Technology, March 2018

[†] *Measuring Black Hole Kicks with Future Gravitational Wave Detectors.*
LIGO-Caltech Summer Research Celebration.
California Institute of Technology, August 2017

^{*} *Theoretical Physics Implications with Future Gravitational Wave Detectors.*
Poster Presentation at Montana Space Grant Consortium Research Celebration.
Bozeman, MT, May 2017

^{*} *Theoretical Physics Implications with Future Gravitational Wave Detectors.*
Poster Presentation at Undergraduate Research Celebration.
Montana State University, April 2017

[†] *Gravitational Wave Tests of General Relativity with Future Detectors.*
APS April Meeting.
Washington D.C., January 2017

[†] *Constraints on Modified Gravity with Future Gravitational Wave Detectors.*
Relativity and Astrophysics Seminar.
Montana State University, October 2016

^{*} *Theoretical Physics with Multi-Band Gravitational Wave Astrophysics.*

Poster Presentation at Undergraduate Research Celebration
Montana State University, April 2016

PRESS	<i>“Looking for nothing to test gravity”</i> Interview with Symmetry Magazine	2018
OUTREACH & SERVICE	<i>Founder</i> Society of Physics Students <i>Coding Nights</i> * Montana State University *Teaching basic coding courses in Mathematica and LaTeX to undergraduate physics students.	2016 - 2018
	<i>Student Representative</i> Physics Undergraduate Curriculum Committee Montana State University	2017 - 2018
	<i>Student Representative</i> Physics Computer Committee Montana State University	2017 - 2018
	<i>Peer Leader for Minorities in Physics</i> Physics Undergraduates Montana State University	2016 - 2017
	<i>Society of Physics Students</i> Montana State University Positions:	
	- President	2016 - 2017
	- Vice President	2015 - 2016
	- Student Representative	2017 - 2018
	- Member	2013 - 2018
MEMBERSHIPS	- American Astronomical Society	2018 - Present
	- LIGO Scientific Collaboration	2017
	- American Physical Society	2016 - 2019
	- National Society of Physics Students	2015 - 2018
	- eXtreme Gravity Institute at Montana State University	2015 - 2018