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## KATIE CHAMBERLAIN she/her

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EDUCATION	<i>Ph.D., Astronomy and Astrophysics</i>	May 2024 (Expected)
	<i>M.S., Astronomy and Astrophysics</i> Steward Observatory, University of Arizona, Tucson, AZ Advisor: Gurtina Besla	May 2021
	<i>B.S., Physics</i> <i>Secondary Major: Mathematics</i> Montana State University, Bozeman, MT Advisor: Nicolas Yunes	May 2018
RESEARCH INTERESTS	Galaxy dynamics <ul style="list-style-type: none"><li>- Interacting galaxy pairs</li><li>- Dynamics of Local Group pairs</li><li>- Cosmological simulations</li></ul>	
PUBLICATIONS	<i>Frequency-domain waveform approximants capturing Doppler shifts</i> <b>K. Chamberlain</b> , C. Moore, D. Gerosa, N. Yunes Phys. Rev. D <b>99</b> , 024025 (2019)	
	<i>Theoretical Physics Implications of Gravitational Wave Observation with Future Detectors</i> <b>K. Chamberlain</b> , N. Yunes Phys. Rev. D <b>96</b> , 084039 (2017)	
	<i>Theory-Agnostic Constraints on Black-Hole Dipole Radiation with Multi-Band Gravitational-Wave Astrophysics</i> E. Barausse, N. Yunes, <b>K. Chamberlain</b> Physical Review Letters <b>116</b> , 241104 (2016)	
RESEARCH EXPERIENCE	<i>Galaxy Dynamics Summer Workshop</i> Center for Computational Astrophysics, Flatiron Institute, NY Advisor: Adrian Price-Whelan	2021
	<i>Graduate Research Assistant</i> Steward Observatory, University of Arizona, AZ Advisor: Gurtina Besla	2018 - Present
	<i>LIGO Summer Undergraduate Research Fellowship (REU)</i> California Institute of Technology, CA	Summer 2017
	<i>Undergraduate Research Assistant</i> eXtreme Gravity Institute - Montana State University, MT Advisor: Nicolas Yunes	2015 - 2018

	<i>Research Apprentice</i> Montana Space Grant Consortium, MT	2016 - 2017
<b>COMPUTATIONAL SKILLS</b>	<i>Proficient:</i> Python, Mathematica, LaTeX, HPC, HTML, git, emacs. <i>Some experience:</i> Java, MATLAB, bash, vi.	
<b>HONORS, AWARDS &amp; GRANTS</b>	MONTANA STATE UNIVERSITY <i>Undergraduate Scholars Program Grant</i> <i>Research Travel Grants</i> <i>Montana University System Honors Scholarship</i>	2015 - 2018 2017, 2018 2013 - 2017
	MONTANA STATE UNIVERSITY PHYSICS DEPARTMENT <i>Outstanding Graduating Senior in Physics</i> <i>Outstanding Undergraduate Physics Researcher Award</i> <i>Georgianne Caughlan Scholarship for Women in Physics</i> <i>John and Marilyn (Milburn) Asbridge Family Physics Scholarship</i>	2018 2017 - 2018 2017 - 2018 2015 - 2017
	MONTANA STATE UNIVERSITY MATHEMATICS DEPARTMENT <i>Outstanding Graduating Senior in Math</i> <i>John L Margaret Mathematics and Science Scholarship</i> <i>Mathematics Department Scholarship for Excellence in Coursework</i>	2018 2017 - 2018 2014 - 2015
	OTHER American Physical Society Division of Gravitation Travel Award	2018
<b>TALKS<sup>†</sup> &amp; POSTERS<sup>*</sup></b>	<sup>†</sup> <i>Frequency of dwarf galaxy pairs throughout cosmic time.</i> TiNy Titans Collaboration. Virtual, Sep 2021  <sup>†</sup> <i>LMC's impact on the inferred Local Group mass.</i> Galaxy Dynamics Workshop, CCA Flatiron Institute. New York, NY, July 2021  <sup>*</sup> <i>Frequency of dwarf galaxy pairs throughout cosmic time.</i> Division of Dynamical Astronomy, AAS. Virtual, May 2021  <sup>*</sup> <i>Frequency of dwarf galaxy pairs throughout cosmic time.</i> Local Group Symposium, Space Telescope Science Institute. Virtual, September 2020  <sup>*</sup> <i>Frequency of dwarf galaxy pairs throughout cosmic time.</i> Small Galaxies, Cosmic Questions Meeting. Durham, UK, July 2019  <sup>†</sup> <i>Towards a "Kicked" Frequency-Domain Waveform Approximant.</i> APS April Meeting. Columbus, Ohio, April 2018	

<sup>†</sup> *Testing Modified Gravity with Future Gravitational Wave Detectors.*  
 Pacific Coast Gravity Meeting.  
 California Institute of Technology, March 2018

<sup>†</sup> *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

<sup>†</sup> *Gravitational Wave Tests of General Relativity with Future Detectors.*  
 APS April Meeting.  
 Washington D.C., January 2017

<sup>†</sup> *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

<b>PRESS</b>	“Looking for nothing to test gravity” Interview with Symmetry Magazine	2018
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<b>OUTREACH &amp; SERVICE</b>	<i>Member</i> Steward Graduate Student Council University of Arizona Acting liaison between faculty and graduate students, responsible for graduate student townhalls to discuss state of the graduate program.	2019 - 2022
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<i>Volunteer</i> Warrior-Scholar Project University of Arizona Research project leader - Taught students an introduction to programming in Python, led a Jupyter Notebook-based exoplanet research project, and provided tutoring help during students’ homework sessions.	2019, 2020
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<i>Founder</i> Society of Physics Students <i>Coding Nights</i> Montana State University Teaching basic coding courses in Mathematica and LaTeX to early undergraduate physics students.	2016 - 2018
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<i>Society of Physics Students</i> Montana State University - President	2013 - 2018  2016 - 2017
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- Vice President 2015 - 2016
- Student Representative 2017 - 2018

#### **MEMBERSHIPS**

- TiNy Titans (TNT) Collaboration 2018 - Present
- American Astronomical Society 2018 - Present
- LIGO Scientific Collaboration 2017
- American Physical Society 2016 - 2019
- eXtreme Gravity Institute at Montana State University 2015 - 2018