

GRANT C. WELDON

gcweldon@umich.edu · <https://umich.edu/~gcweldon>

EDUCATION

University of Michigan <i>B.S. Honors Physics, Mathematics</i>	2017 - 2021 <i>Ann Arbor, MI</i>
--	-------------------------------------

RESEARCH INTERESTS

High-Energy Astrophysics, General Relativity, Gravitational Waves, Cosmology

RESEARCH EXPERIENCE

University of Michigan LIGO SCIENTIFIC COLLABORATION - MICHIGAN GRAVITATIONAL WAVE GROUP <i>Advisor:</i> Prof. Keith Riles	April 2018 - Present <i>Ann Arbor, MI</i>
<ul style="list-style-type: none">· Gravitational wave astrophysics and Advanced LIGO data analysis· Searching for continuous waves emitted by rapidly spinning neutron stars	
Istituto Nazionale di Fisica Nucleare (INFN) VIRGO COLLABORATION - TOR VERGATA GRAVITATIONAL WAVE GROUP <i>Advisors:</i> Prof. Viviana Fafone and Dr. Elisabetta Cesarini	June 2019 - July 2019 <i>Rome, Italy</i>
<ul style="list-style-type: none">· Metrology for thermal noise reduction in future gravitational wave interferometers	

HONORS & AWARDS

· DOE-INFN Summer Research Fellowship , <i>U.S. Department of Energy & INFN</i>	2019
· Sophomore Honors Award with Distinction , <i>University of Michigan LSA Honors Program</i>	2019
· William J. Branstrom Freshman Prize , <i>University of Michigan</i>	2018
· Dr. Sidney J. and Irene Shipman Scholarship , <i>University of Michigan</i> (full tuition, four year merit scholarship)	2017 - 2021
· Regents Merit Scholarship , <i>University of Michigan</i>	2017
· National Merit Scholarship Finalist , <i>National Merit Scholarship Corporation</i>	2017

PUBLICATIONS

· B. P. Abbott, <i>et al.</i> (including G. Weldon), <i>All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data</i> , Phys. Rev. D 100 , 024004 [arXiv:1903.01901] (2019)
--

PRESENTATIONS

· APS April Meeting , <i>Strain Histograms for Evaluating Continuous Gravitational Wave Candidates</i> , Denver, Colorado (April 2019)
· SPS Student Talk , <i>Continuous Gravitational Wave Simulations</i> , University of Michigan (November 2018)

ORGANIZATIONS

Society of Physics Students (SPS) , University of Michigan <i>Vice President</i> (2019 - 2020), <i>Outreach Chair</i> (2018 - 2019)	2017 - Present
American Physical Society (APS)	2017 - Present
Shipman Scholarship Society , University of Michigan	2017 - Present
Honors Program (College of LSA) , University of Michigan	2017 - Present

OUTREACH & SERVICE

SPS Biweekly Speaker Series <i>Coordinator</i>	2019 - 2020 <i>Ann Arbor, MI</i>
Michigan Science Center - Physics Demo Day <i>Volunteer</i> with SPS (<i>Coordinator</i> in 2019)	2018 - Present <i>Detroit, MI</i>
Ann Arbor Hands-On Museum - Physics Palooza <i>Volunteer</i> with SPS (<i>Coordinator</i> in 2019)	2018 - Present <i>Ann Arbor, MI</i>
Burns Park Elementary School - Physics Night <i>Volunteer</i> with SPS	2017 <i>Ann Arbor, MI</i>

RELEVANT COURSEWORK

Physics

- General Relativity (Graduate)*
- High-Energy Astrophysics
- Quantum Mechanics*
- Classical Mechanics

Mathematics

- Probability*
- Linear Algebra
- Honors Differential Equations

[* denotes Fall 2019 enrollment]

TECHNICAL KNOWLEDGE

Python, MATLAB, Linux/Unix, Bash, HTML, L^AT_EX