TERESA PANURACH

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RESEARCH INTERESTS

globular clusters, X-ray binaries, accretion physics, radio astronomy, and high energy phenomena

EDUCATION

Michigan State University (MSU) Expected 2023
East Lansing, MI, USA
Ph.D in Astronomy and Astrophysics
Advisors: J. Strader and L. Chomiuk

The City University of New York (CUNY) at Hunter College 2014 - 2018
New York, NY, USA
B.A in Physics

AWARDS, GRANTS, AND FELLOWSHIPS

NSF Graduate Research Fellowship, $138,000 2020
AstroCom NYC Fellowship, Full Tuition Coverage and Summer Research Stipend 2016 - 2018
American Astronomical Society FAMOUS Travel Grant, $500 2018
AstroCom NYC Senior Scholarship, $700 2017

PUBLICATIONS

3. *GS2000+25: The Least Luminous Black Hole X-ray Binary*
J. Rodriguez, R.Urquhart, R. Plotkin, **T. Panurach**, L. Chomiuk, J. Strader, J. Miller-Jones, E. Gallo, G. Sivakoff. 2020, Astrophysical Journal, 889, 58R

2. *Constraints On Blue Straggler Formation Mechanisms in Galactic Globular Clusters from Proper Motion Velocity Distributions.*
N. W. C. Leigh, **T. Panurach**, M. Simunovic, A. M. Geller, D. Zurek, M. M. Shara, A. Sills, C. Knigge, N. Gosnell, R. Mathieu, T. H. Puzia, J. Ventura, Q. Minor. 2019, Monthly Notices of the Royal Astronomical Society, 482, 231

1. *When Do Clusters Become Multiple Star Systems?: II. Towards a Half-Life Formalism with Four Bodies.*
T. Ibragimov, N. W. C. Leigh, T. Ryu, **T. Panurach**, R. Perna. 2018, Monthly Notices of the Royal Astronomical Society, 477, 4213

SELECTED RESEARCH EXPERIENCES

Graduate Research Assistant:
Dept. of Physics and Astronomy, MSU, East Lansing, MI
Advisors: J. Strader and L. Chomiuk 2018 - Present

- Radio and X-ray observations of low-mass X-ray binaries in globular clusters

Undergraduate Research Assistant:
Dept. of Astrophysics, American Museum of Natural History, New York, NY
Advisor: N. W. C. Leigh 2017 - 2018

- Constrained the formation of blue stragglers in globular clusters using proper motion velocity distributions observed by *Hubble Space Telescope*; resulted in second-author publication
- Created numerical simulations of binary-binary star systems using FEWBODY; resulted in n-author publication

TEACHING AND OUTREACH

Teaching:

Teaching Assistant AST 208: Planets and Telescopes (31 students, MSU) Spring 2020

- Assistant instructor for introductory astronomy lab and lecture for astronomy majors

Teaching Assistant ISP 205L: Visions of the Universe (8 sections, 300 students, MSU) 2018 - 2019

- Instructor of record for introductory astronomy lab for non-majors

Outreach:

One Million Women in STEM Featured Scientist	Jan 2021
Intrepid Sea, Air and Space Museum's GOALS for Girls Presenter (Virtual)	July 2020
MSU's Science Festival Presenter (East Lansing, MI)	April 2019
Astronomy on Tap: Lansing (Lansing, MI)	September 2018
Astronomy on Tap: New York City (Brooklyn, NY)	June 2018

PRESENTATIONS

Talks:

Vanderbilt University Astronomy Seminar (Virtual)	November 2020
Chandra Frontiers in Time-Domain Science Lightning Talk (Virtual)	October 2020
MSU Physics Graduate Organization Seminar (Virtual)	September 2020
AAS High Energy Astronomy Division Talk (Virtual)	September 2020
REU Symposium (New York, NY)	August 2017
CUNY at Hunter College Undergraduate Research Conference (New York, NY)	April 2017
Society for Physics and Astronomy Research Conference (New York, NY)	October 2016
REU Symposium (New York, NY)	August 2016

Posters:

235th American Astronomical Society Meeting (Honolulu, HI)	January 2020
231st American Astronomical Society Meeting (Washington D.C)	January 2018
Columbia University Astrofest (New York, NY)	September 2017
229th American Astronomical Society Meeting (Grapevine, TX)	January 2017
Princeton University Conference for Undergraduate Women in Physics (CUWiP)	January 2017

ADVISING, DEI, AND ACADEMIC SERVICE

Advising:

Research

Jennifer Rodriguez (MSU, Charles Drew Scholar) 2019 - Present

- Reduced and analyzed *VLA* observations of black hole X-ray binary, GS2000+25; resulted in student's first-author publication

Jerry Ortiz (CUNY at College of Staten Island, AstroCom NYC Scholar) Summer 2019

- Calculated the velocity dispersion of nucleated galaxies in the Virgo Cluster using optical spectroscopy from *Keck*

Career

Atticus Chong (MSU, Charles Drew Scholar)	2021 - Present
Ryan Copeland (MSU, Charles Drew Scholar)	2021 - Present
Elias Taira (MSU, Charles Drew Scholar)	2021 - Present
Anita Agasaveeran (MSU, Charles Drew Scholar)	2021 - Present
Ashley Stone (MSU)	2021 - Present
Wasundara Athukoralalage (MSU, Wielenga Scholar)	2020 - Present

Diversity, Equity, and Inclusion:

Stellar Mentorship Program Mentor (East Lansing, MI)	2020 - Present
Maximizing Your Mentoring Relationships Workshop (East Lansing, MI)	June 2020
P-A Research Experiences with Drew Scholars Lead Coordinator (East Lansing, MI)	2020 - Present
Maximizing Your Mentoring Relationships Workshop (Charlottesville, VA)	June 2019
Maximizing Your Mentoring Relationships Workshop (New York, NY)	June 2019
Maximizing Your Mentoring Relationships Workshop (East Lansing, MI)	June 2019
National Radio Consortium Chapter Leader (East Lansing, MI)	2019 - Present
Applying to REU and Internships Workshop (MSU CUWiP)	January 2019
Maximizing Your Mentoring Relationships Workshop (New York, NY)	June 2018
Maximizing Your Mentoring Relationships Workshop (New York, NY)	June 2017

MSU Academic Service:

Co–organizer of Astro Journal Club	2021 - Present
Physics and Astronomy Department Colloquium Host	2020 - Present
X-ray Binary Journal Club Host	2020 - Present
Graduate Student Search Committee Representative for Astronomy Faculty Position	2020
Graduate Student Recruitment Organizer	2019
CUWiP Local Organizing Committee	2018 - 2019

SKILLS

Programming: Python (astropy, numpy, scipy, scikit-learn, matplotlib)
Major Astronomical Packages: AstroPy, CASA
Languages: English (native), Thai (fluent)