Dana Clarice Yaptangco

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Education

Imperial College London, 2024-2028
Doctor of Philosophy in Astrophysics

University of Florida, 2020-2024
Bachelor of Science in Astrophysics, Minor in Science Education
Summa Cum Laude

Research Experience

Graduate Researcher, *Imperial College London (Advisor - Dr. Yvonne Unruh)* Oct 2024 – present
"Disentangling Stellar and Planetary Signals in Exoplanet Transits"

Fulbright Visiting Researcher, *Pontificia Universidad Católica de Chile (Advisor - Dr. Gijs Mulders)* Feb 2025 – Dec 2025
"Characterizing Exoplanets Around Small Stars"

Undergraduate Researcher, *University of California, Berkeley (Advisor - Dr. Ann Marie Cody)* Jun 2023 – Aug 2023
"Detectability of Megastructures in TESS Data Archive"
- Utilized unsupervised machine learning anomaly detection to compute anomaly scores for lightcurves
- Estimated the probability of overlooked technosignatures embedded within NASA's TESS data archive

Undergraduate Researcher, *University of Michigan (Advisor - Dr. Marcelle Soares-Santos)* Jun 2022 – Apr 2023
"Upgrading Post Processing of the DESGW Pipeline"
- Automated image processing pipeline for the Dark Energy Survey to match gravitational waves with optical counterparts
- Conducted mock observing runs & debugged pipeline to prepare for next LIGO observing run

Undergraduate Researcher, *University of Florida (Advisor - Dr. Sarah Ballard)* May 2021 – Mar 2025
"The Effect of Stellar Activity on Transit Detection in M dwarfs"
- Led a study on detectability of exoplanets around active versus inactive M dwarf stars
- Constructed an injection-and-recovery Python pipeline to analyze lightcurves from NASA's TESS Mission

Publications

Hobbs, K. L., Watson, C. A., Costes, J. C., Unruh, Y. C., **Yaptangco, D. C.**, et al. (2026). The Fe I 4377 Å line as a solar faculae indicator: insights from spectral ratio analysis. Monthly Notices of the Royal Astronomical Society, 551, stag1462. https://doi.org/10.1093/mnras/stag1462

Costes, J. C., Watson, C. A., de Mooij, E., Hobbs, K. L., **Yaptangco, D. C.**, et al. (2026). Spectral Ratio Analysis: probing of a new suite of stellar activity indicators as a tool for astrophysical noise mitigation. Monthly Notices of the Royal Astronomical Society, 550, stag1173. https://doi.org/10.1093/mnras/stag1173

Yaptangco, D. C., Ballard, S., Dittmann, J., Albornoz, M. (2025). Quantifying the Effect of Short-timescale Stellar Activity Upon Transit Detection in M Dwarfs. The Astronomical Journal, 169, 153. https://doi.org/10.3847/1538-3881/ada898

Awards & Recognitions

Fulbright Research Grant, *2025*
- $14,300 scholarship to undertake a research project in Santiago, Chile

NSF-GRFP Honorable Mention, *2024*

UF Astronomy Department Honors Thesis Award, *2024*

William Oegerle Scholarship in Physics & Astronomy, *2023-24*
- $5000 award for showing exceptional promise in conducting research in physics and/or astronomy

Outstanding Service Award from the UF Astronomy Department, *2023*

SETI Forward Scholarship, *2023*
- $1500 research support award, aimed at nurturing new SETI research talent

UF University Scholars Program, *2022*
- $1750 research support award, for undergraduate research conducted with faculty one-on-one

Selected Presentations

Poster, *Mini-Neptunes Around M+F Stars* Oct 2025
- Presented at the Chilean Astronomical Society (SOCHIAS) Meeting, Puerto Montt, Chile

Talk, *Characterizing Planets Around Small Stars* Mar 2025
- Presented at the Fulbright Commission Enhancement Meeting, Santiago, Chile

Talk, *Detecting Planets Around M Dwarfs* May 2024
- Presented as the 2024 Oegerle Scholar at the University of Florida Honors Thesis Seminar

Poster, *Detectability of Megastructures in TESS Data Archive* Jan 2024
- Awarded full scholarship to present at the American Astronomical Society Winter Meeting, New Orleans, LA

Talk, *Estimating the Probability of Megastructures in TESS* Aug 2023
- Presented at UC Berkeley SETI REU Symposium, Berkeley, CA

Posters, *Assessing the Detectability of Transiting Planets Around Small Stars* Jan 2023 – Apr 2023
- Presented at UF Spring Undergraduate Research Symposium, Gainesville, FL
- Awarded full scholarship to present at Florida Undergraduate Research Conference, Miami, FL
- Awarded full scholarship to present at Conference for Undergraduate Women in Physics, Orlando, FL

Talk, *Upgrading Post Processing of the DESGW Pipeline* Aug 2022
- Presented at University of Michigan Physics REU Symposium, Ann Arbor, MI

Talk, *Assessing Detectability of Transits Around Active vs. Inactive M dwarfs* Aug 2021
- Presented at University of Florida Astronomy REU Symposium, Gainesville, FL

Other Involvement

Code/Astro Summer School Jun 2026
- Accepted with full scholarship to attend 1-week coding best practices workshop in Santa Cruz, California

Activate Student Mentoring Programme Nov 2024
- Mentee in scheme dedicated to supporting under-represented PhD students at Imperial College London

Exohost Summer School Sep 2024
- Accepted with full scholarship to attend 1-week exoplanets workshop in Tartu, Estonia

Unsolved Problems in Astrophysics May 2024
- Member of the network to revolutionize physicists' understanding of the universe through inclusive workplaces and equitable practices

NASA Executive Secretary Apr 2024
- Recorded and summarized NASA Review Panel proceedings

Selected Service & Outreach

Women & Non-Binary Students in Physics (Mentor) 2024 – Present
- Completed mentor training on helping students identify and reach their goals
- Coached multiple undergraduate students considering a PhD in Physics

Co-Founder & Director, *Women's Astronomy & Astrophysics Mentorship (WAAM!) Program* May 2023 – May 2024
- Conceptualized and constructed a mentorship program focused on serving women and underrepresented minorities pursuing astronomy/astrophysics degrees
- Matched compatible graduate/undergraduate mentors & mentees as "big stars" and "little stars"
- Organized and coordinated monthly events, including mentor training, team building, internship workshops, women's discussion panels, telescope observing nights

Apprentice Teacher, *PK Yonge Developmental Research School, Kanapaha Middle School, Gainesville High School* Jan 2023 – Dec 2023
- Created lesson plans and taught 8th & 12th grade science classes full-time for one month and part-time throughout school semesters
- Improved teaching based on recorded videos of teaching class

Tutor, *Triunfadores College Prep Program* Aug 2022 – Dec 2022
- Tutored English language learner (ELL) elementary students in math, reading, and science

STEM Club, *Carolyn Beatrice Parker Elementary School* Jan 2022 – Apr 2022
- Created lesson plans and ran weekly STEM club for the local elementary school's after-school education program