Dana Clarice Yaptangco

London, UK d.yaptangco24@imperial.ac.uk github.com/danay6 ORCID 0000-0001-6364-7336

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"

Graduate Researcher, *Pontificia Universidad Católica de Chile (Advisor - Dr. Gijs Mulders)* Dec 2025
"Characterizing Exoplanet 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 – present
"The Effect of Stellar Activity on Transit Detection in M dwarfs"
- Lead a study on detectability of exoplanets around active versus inactive M dwarf stars
- Construct an injection-and-recovery Python pipeline to analyze lightcurves from NASA's TESS Mission

Publications

First Author, *Yaptangco D, Ballard S, Dittmann J. Quantifying the Effect of Short-timescale Stellar Activity Upon Transit Detection in M Dwarfs. Submitted Jan 2024. https://arxiv.org/abs/2402.00115*

Co-Author, *Cody A. et al. A Search for Anomalous Fading Variability in the TESS Prime Mission I. Single Occculters. (In prep).*

Conference Abstract,
Yaptangco D, Cody A, Giles D. Signal Injection into TESS Light Curves for Technosignature Detection

Conference Abstract, *Giles D, Cody A, Yaptangco D, Tong Y, Croft S. Anomaly Detection with TESS: A Search for Megastructures and Non-Spherical Occulters*

Awards & Recognitions

Fulbright Research Grant, *2024-25*
- Awarded scholarship to undertake a research project in Santiago, Chile (9 months support)

NSF-GRFP Honorable Mention

UF Astronomy Department Honors Thesis Award, *2024*

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

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

SETI Forward Scholarship, *2023*
- $1500 research support, aimed at nurturing new SETI research talent, to be awarded at the Drake Awards Gala 2024

GSMI Scholar of Científico Latino x Simons Foundation, *2023*
- Selected to join the Graduate Student Mentorship Initiative (GSMI), a national cohort of 100 STEM students from minoritized backgrounds to engage in grad school preparation

UF University Scholars Program, *2022*
- $1750 research support, selected to join cohort of 200 UF students across all disciplines conducting research with faculty one-on-one

Presentations

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 travel grant 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 travel grant to present at Florida Undergraduate Research Conference, Miami, FL
- Awarded travel grant 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

Involvement

Exohost Summer School — Sep 2024
- Accepted with full funding to attend 1-week exoplanets workshops in Tartu, Estonia

NASA Executive Secretary — Apr 2024
- Took notes for NASA Review Panel
- Gained insight into funding application review process

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

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

Other Service & Outreach

Women & Non-Binary Students in Physics (Mentor) — Oct 2024 – Mar 2024
- Completed mentor training on helping students identify and reach their goals
- Coached an undergraduate student 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
- Match compatible graduate/undergraduate mentors & mentees as "big stars" and "little stars"
- Organize and coordinate monthly events, including mentor training, team building, internship workshops, women's discussion panels, telescope observing nights

Apprentice Teacher, *P.K. Yonge Developmental Research School* — May 2023
- Wrote lesson plans and taught 8th grade science classes full time for one month
- Improved teaching based on recorded videos of myself teaching class

Tutor, *Triunfadores College Prep Program* — Aug 2022 – Dec 2022
- Tutored English language learner elementary students in math, reading, and science 2 hours weekly

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