

Julio M. Morales

EDUCATION

NEW MEXICO STATE UNIVERSITY

PH.D. IN ASTRONOMY

Aug 2022 - Present | Las Cruces, NM
College of Arts and Sciences

UNIVERSITY OF MASSACHUSETTS AMHERST

B.S IN PHYSICS AND ASTRONOMY
May 2022 | Amherst, MA
College of Natural Sciences

CONTACT INFO

Website: JulioM1823.com

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Number: (978) 467-6662

SKILLS

PROGRAMMING

- Python • GitHub • Git
- \LaTeX • HTML

SPOKEN LANGUAGES

- English (native fluent)
- Spanish (native proficient)

RESEARCH EXPERIENCE

GRADUATE RESEARCH ASSISTANT | NEW MEXICO STATE UNIVERSITY

Aug 2022 - Present | Las Cruces, NM
Advisor: Professor Jason Jackiewicz

POST-BACCALAUREATE RESEARCHER | AMHERST COLLEGE

July 2022 - Sep 2022 | Amherst, MA
Advisor: Professor Katherine B. Follette

SENIOR THESIS | UMASS AMHERST

Sep 2021 - May 2022 | Amherst, MA
Advisor: Professor Katherine B. Follette

Title: Accretion Variability in Transitional Disk Host-Stars: Second-to-Minute Timescale $H\alpha$ Variability in the Giant Accreting Protoplanet Survey

FIVE COLLEGE ASTRONOMY DEPARTMENT SUMMER RESEACHER | AMHERST COLLEGE

July 2021 - Sep 2021 | Amherst, MA
Advisor: Professor Katherine B. Follette & Dr. Connor Robinson

TELESCOPE OBSERVING EXPERIENCE

SOUTHERN ASTROPHYSICAL RESEARCH (SOAR) TELESCOPE

Oct 2022 | Cerro Pachón, Chile

AMHERST COLLEGE OBSERVATORY

Oct 2022 | Amherst, Massachusetts

CONFERENCES/PRESENTATIONS

- SACNAS Diversity in STEM Conference | San Juan, PR (presented in Oct 2022)
- 2022 Northeast Star and Planet Formation Meeting | Middleton, CT (attended in July 2022)
- Cool Stars Conference | Toulouse, FR (presented in July 2022)
- American Astronomical Society Conference 240 | Pasadena, CA (presented in June 2022)
- Amherst College Physics and Astronomy Senior Thesis Talk | Amherst, MA (presented in May 2022)
- Five College Astronomy Department Thesis Picnic Talk | Amherst, MA (presented in May 2022)
- SACNAS Diversity in STEM Conference | (Virtual) (attended in Nov 2021)
- Amherst College Summer Research Poster Session | Amherst, MA (presented in Sep 2021)
- Five College Astronomy Department Research Presentation | Amherst, MA (presented in Aug 2021)

DIVERSITY, EQUITY, & INCLUSION

INCLUSIVE ASTRONOMY | NEW MEXICO STATE UNIVERSITY

Committee Member | Aug 2022 - Present | Las Cruces, New Mexico

LETTERS TO A PRE-SCIENTIST

Scientist Pen-Pal | Aug 2022 - Present

HIDDEN FIGURES WORKSHOP | TRIO UPWARD BOUND, UMASS BOSTON

Founder & Facilitator | 2020 | Boston, MA

OUTREACH

"SO YOU WANNA BE AN ASTRONOMER..." DOCUMENTARY

Executive Producer | In progress

STAR PARTY

Observing Assistant | October 2022 | Las Cruces, New Mexico

RESEARCH EXPERIENCE FOR UNDERGRADUATES Q&A PANEL

Panelist | September 2021 | Amherst, Massachusetts

EXPLORE THE SOLAR SYSTEM: AMAZING FACTS & HISTORY OF THE SOLAR SYSTEM

Outreach Coordinator | July 2021 | Northampton, Massachusetts

MODERN ASTRONOMY SUMMER PRE-COURSE

Observing Night Assistant | July 2021 | Amherst, Massachusetts

TEACHING HISTORY

INTRODUCTION TO ASTRONOMY | New Mexico State University

Lab Instructor | 2022-Present | Las Cruces, New Mexico

TEACHING ACADEMY | New Mexico State University

Sustaining Member | 2022-Present | Las Cruces, New Mexico

ASTRONOMY HELP DESK | UMass Amherst

Tutor | 2021-2022 | Amherst, Massachusetts

TRIO UPWARD BOUND | UMass Boston

Instructor/Tutor/TA | 2020 | Boston, Massachusetts

TRIO UPWARD BOUND | UMass Boston

Tutor/TA | 2019 | Paxton, Massachusetts

NON-RESEARCH MENTORSHIP

(Mentorship materials can be found at: [JulioM1823.com](https://www.julioM1823.com))

- Seth Wright (Undergraduate) | 2022-Present | New Mexico State University
- Mariano Gracia (Undergraduate) | 2023-Present | New Mexico State University

AWARDS/HONORS

- AAS Chambliss Astronomy Achievement Award Competition (Medalist) | 2022
- Webber Voyager Graduate Fellowship | 2022 | \$7,500/yr
- SACNAS Travel Scholarship | 2022
- UMass Amherst Deans List Honors | 2021-2022
- John and Abigail Adams Scholarship | 2017 | \$1,400/yr

PUBLICATIONS

- [1] W. O. Balmer, K. B. Follette, L. M. Close, J. R. Males, R. J. De Rosa, J. I. A. Redai, A. Watson, A. J. Weinberger, K. M. Morzinski, J. Morales, K. Ward-Duong, and L. Pueyo. Improved orbital constraints and $h\alpha$ photometric monitoring of the directly imaged protoplanet analog hd 142527 b, 2022.
- [2] K. B. Follette, L. M. Close, J. R. Males, K. Ward-Duong, W. O. Balmer, J. Adams Redai, J. Morales, C. Sarosi, B. Dacus, R. J. De Rosa, F. Garcia Toro, C. Leonard, B. Macintosh, K. M. Morzinski, W. Mullen, J. Palmo, R. Nzaba Saitoti, E. Spiro, H. Treiber, J. Wang, D. Wang, A. Watson, and A. J. Weinberger. The Giant Accreting Protoplanet Survey (GAPlanetS) – Results from a Six Year Campaign to Image Accreting Protoplanets. arXiv, page arXiv:2211.02109, Nov. 2022.
- [3] J. M. Morales, W. O. Balmer, and K. B. Follette. $H\alpha$ variability in the giant accreting protoplanet survey, 2023 (in progress).