

# DANIEL M. KROLIKOWSKI

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Department of Astronomy, University of Texas at Austin

## EDUCATION

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### The University of Texas at Austin

*August 2016 - Present*

Ph.D. Astronomy (expected 2022)

*JPL SURP Fellowship*

Advisor: Dr. Adam Kraus

Thesis: *Young Stellar Populations and their Planetary Systems*

### State University of New York College at Geneseo

*September 2012 - May 2016*

B.A. Physics, B.A. Mathematics

## PUBLICATIONS

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### First Author

1. *Gaia EDR3 Reveals the Substructure and Complicated Star Formation History of the Greater Taurus-Auriga Star-forming Complex*

**Daniel Krolikowski**, Adam Kraus, Aaron Rizzuto, 2021, AJ, 162, 110. *Citations: 3*

### In prep.

1. *Variability of the He IR Triplet in Young Stars and Implications for Exosphere Detection*

**Daniel Krolikowski**, Adam Kraus, Benjamin Tofflemire, Michael Gully-Santiago. In prep.

2. *The Discovery of Four Lithium Rich Red Giants in a Single Open Cluster, NGC 2158*

**Daniel Krolikowski**, Aaron Steinhauer, Constantine Deliyannis, Barbara Anthony-Twarog, Bruce Twarog. In prep.

### Co-author

3. *TIC 121088959 and TIC 121088960: A quadruple star system containing a highly eccentric low-mass eclipsing binary*

Eunkyu Han, Saul Rappaport, Andrew Vanderburg,..., **Daniel Krolikowski**, et al., Submitted MNRAS, 2021.

2. *Close Companions around Young Stars*

Marina Kounkel, Kevin Covey, Maxwell Moe,..., **Daniel Krolikowski**, et al., 2019, AJ, 157, 196.

1. *Zodiacal Exoplanets in Time VIII. A Two-planet System in Praesepe from K2 Campaign 16*

Aaron Rizzuto, Andrew Vanderburg, Andrew Mann,..., **Daniel Krolikowski**, 2018, AJ, 156, 195.

## OBSERVING PROPOSALS AND EXPERIENCE

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Hobby Eberly Telescope (Habitable-zone Planet Finder)

*November 2018 - Present*

→ 160 hours PI awarded

Harlan J. Smith Telescope (Tull Spectrograph)

*November 2016 - Present*

→ 52 nights observing experience (45 PI awarded): 24 in-person, 28 remote

WIYN 0.9m Telescope (Half Degree Imager)

*December 2013 - January 2014*

→ 4 nights on-site observing experience

## ACADEMIC PRESENTATIONS

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### Talks

8. *Gaia EDR3 Reveals the Complicated Substructure and Star Formation History of Taurus*. University of Hawaii Star and Exoplanet Seminar, November 8, 2021 (scheduled)
7. *Gaia EDR3 Reveals the Complicated Substructure and Star Formation History of Taurus*. UT Austin, April 14, 2021
6. *Probing the Formation and Evolution of Young Planetary Systems with HPF*. THYME (TESS Hunt for Young and Maturing Exoplanets) Collaboration Meeting, December 8, 2020
5. *Probing the Formation and Evolution of Young Planetary Systems with HPF*. UT Austin, April 15, 2020
4. *Gaia Reveals Substructure in the Taurus Star Forming Region*. UT Austin, March 15, 2019
3. *Multiple Stellar Populations in Taurus and their 6D Structure*. GMT Science Meeting, September 13, 2018
2. *An Older Stellar Population Associated with the Taurus Star Forming Region*. UT Austin, May 2, 2018
1. *The Discovery of Four Lithium Rich Giants in a Single Open Cluster, NGC 2158*. UT Austin, March 3, 2017

### Posters

7. *Precision RVs and He Spectroscopy of Young Planet Hosts with the Habitable-zone Planet Finder*. Extreme Solar Systems IV, August 2019
6. *A Spectroscopic and Kinematic Survey of the Taurus-Auriga Star Forming Complex*. Cool Stars 20, July 2018
5. *A Spectroscopic and Kinematic Survey of the Taurus-Auriga Star Forming Complex*. Star and Planet Formation in the Southwest 2, March 2018
4. *WIYN Open Cluster Study: Lithium in Red Giants of the Open Cluster NGC 2158*. Council on Undergraduate Research: Posters on the Hill, April 2016
3. *WIYN Open Cluster Study: Lithium in Red Giants of the Open Cluster NGC 2158*. 227th AAS Meeting, January 2016
2. *Detecting Traces of Life in the Plume of Enceladus*. 225th AAS Meeting, January 2015
1. *WIYN Open Cluster Study: Li in the Open Cluster NGC 6811*. 225th AAS Meeting, January 2015

## TEACHING

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**Teaching Assistant:** Search for Extraterrestrial Life

*Spring 2019 & Spring 2020*

*UT Austin, Astronomy 309L*

Gen-Ed course for non-STEM majors. Tasks included planning and executing multiple lectures throughout the semester, helping to run class-time discussions, leading exam review sessions, writing exam questions, holding office hours, and grading.

**Undergraduate Lab Instructor:** Introductory Astronomy

*Fall 2013 - Spring 2016*

*SUNY Geneseo, Astronomy 101, 106, 111*

Gen-Ed astronomy lab course for non-STEM majors. Tasks included running my own section of the lab course, giving pre-lab lectures, holding office hours, and grading.

## Physics Learning Center Tutor

*Spring 2014 – Spring 2016*

*SUNY Geneseo*

I tutored and helped physics students in courses ranging from non-major introductory courses to upper level major courses in the department learning center.

## AWARDS AND DISTINCTIONS

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|--|---------------------------|
| • Fred T. Goetting, Jr. Memorial Fellowship                          | <i>Summer 2021</i>        |
| • JPL Strategic Undergraduate Research Partnership (SURP) Fellowship | <i>Sep 2020 - present</i> |
| • SUNY Geneseo Presidential Scholar                                  | <i>May 2015</i>           |
| • Phi Beta Kappa Honor Society                                       | <i>May 2015</i>           |
| • Sigma Pi Sigma Physics Honor Society                               | <i>Dec 2014</i>           |

## SERVICE AND OUTREACH

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### Astronomy on Tap ATX

*Fall 2017 – Present*

I volunteer with other UT Austin graduate students and postdocs to run the monthly Astronomy on Tap ATX outreach show, attended regularly by  $\sim 200$  people. Since September 2019 I have been the co-host of the Astronomy in the News section of our shows, and have helped run social media accounts. More about AoTATX can be found at our website: [aotatx.org](http://aotatx.org)

### Graduate Recruitment Officer

*Fall 2018 – Spring 2020*

I was the grad student representative on our department recruitment visit planning committee. I planned visit activities and schedules, and was the point of contact for prospective students and their hosts.

### TAURUS Graduate Student Mentor

*Summers 2019 & 2021*

I have been a graduate student mentor for the Texas Astronomy Undergraduate Research experience for Under-represented Students (TAURUS).

### Grad-Undergrad Mentoring Program

*Spring 2019 – Present*

I am a graduate student mentor for two UT Austin astronomy undergraduate majors.

### Girl Day at UT

*Spring 2019*

I participated in the Association of Women in Astronomy Research and Education's Discover Astronomy demos and activities for Girl Day at UT Austin, a STEM outreach event attended by over 8,000 elementary and middle school students.

## PUBLIC TALKS

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6. *Earth's analogue in the unlikely place, or why Titan is the coolest moon.* Astronomy on Tap ATX, September 17, 2019
5. *Illuminating the Physics of Star and Planet Formation with the Nearest Newly-Formed Stars.* McDonald Observatory Board of Visitors Meeting, July 14, 2018
4. *What the Taurus Star Forming Region Can Tell Us About Star and Planet Formation.* McDonald Observatory Special Viewing Night, November 1, 2017
3. *The Cosmic Importance of Lithium and the Mystery of Four Lithium Rich Stars in a Single Cluster.* Austin Astronomical Society Meeting, July 14, 2017
2. *Life is hard... to find, but let's look around Saturn for it!* Austin Astronomical Society Meeting, July 14, 2017
1. *Life is hard... to find, but let's look around Saturn for it!* Astronomy on Tap ATX, March 20, 2017