Quang H. Tran

Curriculum Vitae

CONTACT INFORMATION

Department of Astronomy
The University of Texas at Austin
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EDUCATION

Ph.D., The University of Texas at Austin *Expected Spring 2024*
Advisor: Dr. Brendan P. Bowler

M.A., The University of Texas at Austin *March 2021*
Thesis: *Near-Infrared Radial Velocity Jitter of Young Sun-like Stars*
Advisor: Dr. Brendan P. Bowler

A.B., The University of Chicago *September 2014 – June 2018*
Heyman-Moritz Odyssey Scholar
Thesis: *The Distance to Sculptor via RR Lyrae Period-Luminosity Relations*
Advisor: Dr. Wendy L. Freedman

APPOINTMENTS

The University of Texas at Austin *2018 – Present*
NASA FINESST Fellow *2020 – Present*
Graduate Student Researcher *2018 – 2020*

The Flatiron Institute, CCA
Pre-Doctoral Fellow *2021 – 2022*

The University of Chicago *2015 – 2018*
Undergraduate Research Assistant

RESEARCH INTERESTS

- Understanding the evolution of giant planetary systems architecture and geometry.
- Characterizing the influence of stellar properties on planetary occurrence rates.
- Searching for hot and warm Jupiters around young, active stars.
- Modeling stellar activity signals in astronomical time series.

AWARDS AND HONORS

SACNAS Outstanding Student Oral Presentation Award *2022*
Flatiron Institute CCA Pre-Doctoral Fellowship *2021*
Fred T. Goetting, Jr. Memorial Endowed Presidential Scholarship, UT Austin *2021*
Outstanding service to the Department of Astronomy, awarded once per year
Outstanding Master's Thesis, UT Austin *2021*
Outstanding Master's thesis in Mathematics, Engineering, Physical Sciences, or Biological and Life Sciences, awarded once per year to one student
ExoExplorers Inaugural Cohort, ExoPAG and NASA *2021*
McDonald Observatory B.O.V. Master's Defense Award, UT Austin *2020*
Outstanding PhD candidacy exam and defense, awarded once per year
Department of Astronomy OGS Summer Award, UT Austin *2020*

AWARDED GRANTS

FI, Future Investigators in NASA Earth and Space Science and Technology ($135k)
Determining the Evolution and Migration of Young Giant Planets *2020*

SCIENTIFIC PRESENTATIONS

Invited Talk	Pennsylvania State University CEHW Seminar	*March 2023*
Contributed Talk	2022 SACNAS NDiSTEM Conference	*Oct. 2022*
Invited Talk	McDonald Observatory Board of Visitors Meeting	*July 2022*
Invited Talk	University of Montreal Student Seminar Series	*June 2022*

Invited Talk	Yale University Exoplanets and Stars Seminar	*Dec. 2021*
Invited Talk	ExoExplorer's Science Series, NASA	*March 2021*
Contributed Talk	Stars, Planets, and the ISM Seminar, UT Austin	*May 2020*
Contributed Talk	ERES IV, Pennsylvania State University	*June 2018*

REFEREED PUBLICATIONS

NASA ADS, **ORCID iD**, **Google Scholar**.

First-author publications: 5 (1 submitted).
Total publications: 13 (3 submitted).
Total first-author citations: 17, Total citations: 53.
First-author *h*-index: 3, Total *h*-index: 5.

First-Author Publications

5. *The Epoch of Giant Planet Migration Planet Search Program. II. A Young Hot Jupiter Candidate around the AB Dor Member HS Psc*
Tran, Q. H.; Bowler, B. P.; Cochran, W. D.; et al. [9 Total]; AAS Journals, submitted.

4. *Joint Modeling of Radial Velocities and Photometry with a Gaussian Process Framework*
Tran, Q. H.; Bedell, Megan; Foreman-Mackey, Daniel; Luger, Rodrigo; 2023, AJ, 950, 162.

3. *Distances to Local Group Galaxies via Population II, Stellar Distance Indicators I: The Sculptor Dwarf Spheroidal*
Tran, Q. H.; Hoyt, T. J.; Freedman, W. L.; Madore, B. F.; Oakes, E. K.; Cerny, W.; Hatt, D.; Beaton, R. L; 2022, AJ, 935, 1.

2. *TOI-1670 b and c: An Inner Sub-Neptune with an Outer Warm Jupiter Unlikely to Have Originated from High-eccentricity Migration*
Tran, Q. H.; Bowler, B. P.; Endl, M.; et al. [41 Total]; 2022, AJ, 163, 225.

1. *The Epoch of Giant Planet Migration Planet Search Program. I. Near-Infrared Radial Velocity Jitter of Young Sun-like Stars*
Tran, Q. H.; Bowler, B. P.; Cochran, W. D.; et al. [11 Total]; 2021, AJ, 161, 173.

Second-Author & Third-Author Publications

2. *Signs of Similar Stellar Obliquity Distributions for Hot and Warm Jupiters Orbiting Cool Stars*
Morgan, M.; Bowler, B. P.; **Tran, Q. H.**; et al. [6 Total]; AAS Journals, submitted.

1. *Rotation Periods, Inclinations, and Obliquities of Cool Stars Hosting Directly Imaged Substellar Companions: Spin Orbit Misalignments Are Common*
Bowler, B. P.; **Tran, Q. H.**; Zhang, Z.; et al. [13 Total]; 2023, ApJ, 165, 4.

Co-Author Publications

6. *A Large and Variable Leading Tail of Helium in a Hot Saturn Undergoing Runaway Inflation*
Gully-Santiago, M.; Morley, C. V.; Luna, J.; et al. [17 Total including Tran, Q. H.]; AAS Journals, submitted.

5. *Giant Tidal Tails of Helium Escaping the Hot Jupiter HAT-P-32 b*
Zhang, Z.; Morley, C. V.; Gully-Santiago, M.; et al. [17 Total including Tran, Q. H.]; Science Advances, 9, 23.

4. *Astrometric Accelerations as Dynamical Beacons: A Giant Planet Imaged Inside the Debris Disk of the Young Star AF Lep*
Franson, K.; Bowler, B. P.; Zhou, Y.; et al. [16 Total including Tran, Q. H.]; ApJL, accepted.

3. *Astrometric Accelerations as Dynamical Beacons: Discovery and Characterization of HIP 21152 B, the First T-dwarf Companion in the Hyades*
Franson, K.; Bowler, B. P.; Bonavita, M.; et al. [31 Total including Tran, Q. H.]; 165, 2.

2. *Distances to Local Group Galaxies via Population II, Stellar Distance Indicators. II. The Fornax Dwarf Spheroidal*
Oakes, E. K.; Hoyt, T. J.; Freedman, W. L.; et al. [8 Total including Tran, Q. H.]; 2022, ApJ, 929, 116.

1. *Dynamical Mass of the Young Substellar Companion HD 984 B*
Franson, K.; Bowler, B. P.; Brandt, T. D.; Dupuy, T. J.; et al. [8 Total including Tran, Q. H.]; 2022, AJ, 163, 50.

PI OBSERVING PROGRAMS

PI, Habitable Zone Planet Finder (HPF), Hobby-Eberly Telescope: *The Epoch of Giant Planet Migration*, 452.3 hours (2019-T1–2023-T3)

PI, NN-EXPLORE Exoplanet Investigations with Doppler Spectroscopy (NEID), WIYN Observatory: *Confirmation of Two Hot Jupiters in the AB Dor Young Moving Group*, 2.07 nights (2023A); 1.72 nights (2023B)

PI, M dwarf Advanced Radial velocity Observer Of Neighboring eXoplanets (MAROON-X), Gemini-North Telescope: *Confirmation of Two Hot Jupiters in the AB Dor Young Moving Group*, 12.8 hours (2023B)

PI, 3.5m NASA Exoplanet Star (and) Speckle Imager (NESSI), WIYN Observatory: *Establishing the Evolution and Migration of Giant Planets*, 1.5 nights (2022B)

PI, 2.7m Robert G. Tull Coudé Spectrograph, McDonald Observatory: *Evolution and Migration of Hot Jupiters*, 15 nights (2019-T1–2020-T3)

SERVICE AND OUTREACH

Referee for AAS Journals (AJ)	*2022 – Present*
TAURUS Scholars Graduate Student Mentor and Co-Lead	*2019 – 2023*
UT Austin Astronomy Graduate Student Mentor and Co-Lead	*2018 – 2023*
UT Austin Astronomy on Tap, Member and Co-Host	*2019 – 2020*
UT College of Natural Sciences First Generation FIG Mentor	*2019 – 2020*