

# Quang H. Tran

## Curriculum Vitae

CONTACT INFORMATION	Department of Astronomy The University of Texas at Austin 2515 Speedway, Stop C1400, Austin, Texas 78712	<a href="mailto:quangtran@utexas.edu">quangtran@utexas.edu</a> +1 (404) 641-2624 <a href="http://quanghtran.io">quanghtran.io</a>
EDUCATION	<b>Ph.D., The University of Texas at Austin</b> Dissertation: <i>The Epoch of Giant Planet Migration: Searching for Young Planets in the Stellar Noise</i> Advisor: Dr. Brendan P. Bowler <b>M.A., The University of Texas at Austin</b> Thesis: <i>Near-Infrared Radial Velocity Jitter of Young Sun-like Stars</i> Advisor: Dr. Brendan P. Bowler <b>A.B., The University of Chicago</b> Heyman-Moritz Odyssey Scholar Thesis: <i>The Distance to Sculptor via RR Lyrae Period-Luminosity Relations</i> Advisor: Dr. Wendy L. Freedman	<i>Expected July 2024</i> <i>March 2021</i> <i>September 2014 – June 2018</i>
APPOINTMENTS	<b>The University of Texas at Austin</b> NASA FINESST Fellow Graduate Student Researcher <b>The Flatiron Institute, CCA</b> Pre-Doctoral Fellow <b>The University of Chicago</b> Undergraduate Research Assistant	<i>2018 – Present</i> <i>2020 – 2023</i> <i>2018 – Present</i> <i>2021 – 2022</i> <i>2015 – 2018</i>
RESEARCH INTERESTS	<ul style="list-style-type: none"><li>• Understanding the evolution of giant planetary systems architecture and geometry.</li><li>• Characterizing the influence of stellar properties on planetary occurrence rates.</li><li>• Searching for hot and warm Jupiters around young, active stars.</li><li>• Modeling stellar activity signals in astronomical time series.</li></ul>	
SELECT AWARDS AND HONORS	SACNAS Outstanding Student Oral Presentation Award Flatiron Institute CCA Pre-Doctoral Fellowship Fred T. Goetting, Jr. Memorial Endowed Presidential Scholarship, UT Austin <i>Outstanding service to the Department of Astronomy, awarded once per year</i> Outstanding Master's Thesis, UT Austin <i>Outstanding Master's thesis in Mathematics, Engineering, Physical Sciences, or Biological and Life Sciences, awarded once per year to one student</i> ExoExplorers Inaugural Cohort, ExoPAG and NASA McDonald Observatory B.O.V. Master's Defense Award, UT Austin <i>Outstanding PhD candidacy exam and defense, awarded once per year</i>	<i>2022</i> <i>2021</i> <i>2021</i> <i>2021</i> <i>2021</i> <i>2020</i>
AWARDED GRANTS	PI, 51 Pegasi b Fellowship (\$430k) <i>The Orbital and Thermal Evolution of Young Giant Planets</i> FI, FINESST (\$135k) <i>Determining the Evolution and Migration of Young Giant Planets</i>	<i>2024</i> <i>2020</i>
SELECT SCIENTIFIC PRESENTATIONS	Contributed Talk Contributed Talk Contributed Talk Contributed Talk Invited Talk Invited Talk	243rd Winter AAS Meeting ELT Science in Light of JWST Princeton University Exoplanet Seminar Columbia University Astronomy Seminar UC Santa Cruz PLUNCH Seminar Pennsylvania State University CEHW Seminar <i>Jan. 2024</i> <i>Dec. 2023</i> <i>Nov. 2023</i> <i>Nov. 2023</i> <i>Oct. 2023</i> <i>March 2023</i>

	Contributed Talk	2022 SACNAS NDiSTEM Conference	<i>Oct. 2022</i>
	Invited Talk	McDonald Observatory Board of Visitors Meeting	<i>July 2022</i>
	Invited Talk	University of Montreal Student Seminar Series	<i>June 2022</i>
	Invited Talk	HET Board of Visitors Meeting (virtual)	<i>Dec. 2021</i>
	Invited Talk	Yale University Exoplanets and Stars Seminar	<i>Dec. 2021</i>
	Invited Talk	ExoExplorer’s Science Seminar Series, NASA	<i>March 2021</i>
SELECT PI OBSERVING PROGRAMS	PI, Habitable Zone Planet Finder (HPF), Hobby-Eberly Telescope: <i>The Epoch of Giant Planet Migration</i> , 452.3 hours (2019-T1–2024-T1)		
	PI, NN-EXPLORE Exoplanet Investigations with Doppler Spectroscopy (NEID), WIYN Observatory: <i>Confirmation of Two Hot Jupiters in the AB Dor Young Moving Group</i> , 2.07 nights (2023A); 1.72 nights (2023B)		
	PI, M dwarf Advanced Radial velocity Observer Of Neighboring eXoplanets (MAROON-X), Gemini-North Telescope: <i>Confirmation of Two Hot Jupiters in the AB Dor Young Moving Group</i> , 12.8 hours (2023B)		
	PI, 3.5m NASA Exoplanet Star (and) Speckle Imager (NESSI), WIYN Observatory: <i>Establishing the Evolution and Migration of Giant Planets</i> , 1.5 nights (2022B)		
	PI, 2.7m Robert G. Tull Coudé Spectrograph, McDonald Observatory: <i>Evolution and Migration of Hot Jupiters</i> , 15 nights (2019-T1–2020-T3)		
SELECT SERVICE AND OUTREACH	Referee for AAS Journals (AJ)		<i>2022 – Present</i>
	UT Austin Astronomy Graduate Student Mentor and Co-Lead		<i>2019 – Present</i>
	TAURUS Scholars Graduate Student Mentor and Co-Lead		<i>2019 – 2023</i>
	UT Austin Astronomy on Tap, Member and Co-Host		<i>2019 – 2020</i>
	UT Austin College of Natural Sciences First Generation Mentor		<i>2019 – 2020</i>
REFEREED PUBLICATIONS	 <a href="#">NASA ADS</a> ,  <a href="#">ORCID iD</a> ,  <a href="#">Google Scholar</a> .		
	<b>First-author publications: 7</b>		
	<b>Total publications: 15</b>		
	<b>First-Author Publications</b>		
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	7. <i>The Epoch of Giant Planet Migration Planet Search Program. III. The Occurrence Rate of Giant Planets Inside the Water Ice Line at Young Ages</i> <b>Tran, Q. H.</b> & Bowler, B. P., Cochran, W. D., et al. [9 Total], in prep.		
	6. <i>Gaussian Process Models Impact the Inferred Properties of Giant Planets around Active Stars</i> <b>Tran, Q. H.</b> & Bowler, B. P. submitted.		
	5. <i>The Epoch of Giant Planet Migration Planet Search Program. II. A Young Hot Jupiter Candidate around the AB Dor Member HS Psc</i> <b>Tran, Q. H.</b> , Bowler, B. P., Cochran, W. D., et al. [9 Total], 2024, AJ, 167, 193.		
	4. <i>Joint Modeling of Radial Velocities and Photometry with a Gaussian Process Framework</i> <b>Tran, Q. H.</b> , Bedell, M., Foreman-Mackey, D., Luger, R., 2023, AJ, 950, 162.		
	3. <i>Distances to Local Group Galaxies via Population II, Stellar Distance Indicators I: The Sculptor Dwarf Spheroidal</i> <b>Tran, Q. H.</b> , Hoyt, T. J., Freedman, W. L., et al. [8 Total], 2022, AJ, 935, 1.		
	2. <i>TOI-1670 b and c: An Inner Sub-Neptune with an Outer Warm Jupiter Unlikely to Have Originated from High-eccentricity Migration</i> <b>Tran, Q. H.</b> , 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

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### 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], AJ, 167, 2

### 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

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### 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, accepted.

### 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, 950, 2.

### 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.