

# Joanne Tan

Max Planck Institute for Astrophysics  
Garching bei München, Germany

 [tanofspace.github.io](https://tanofspace.github.io) |  [jt看@mpa-garching.mpg.de](mailto:jt看@mpa-garching.mpg.de) |  [@tanofspace](https://twitter.com/tanofspace) |  [tanofspace.bsky.social](https://tanofspace.bsky.social)

## RESEARCH INTERESTS

---

the circumgalactic medium (CGM), galaxy formation and evolution, galaxy-black hole relationships, galaxy dynamics and kinematics, AGN variability, high-performance computing and computational astrophysics, machine learning

## EDUCATION & APPOINTMENTS

---

### Max Planck Institute for Astrophysics (MPA)

Garching, Germany

Ph.D in Physics

Sep 2022–present

*The cosmological formation of massive galaxies since  $z=5$*

Advisor: Dr. Thorsten Naab

### Texas A&M University (TAMU)

College Station, TX, USA

MS in Astronomy

Aug 2020–May 2022

*Fraction of tidal disruption events in AGNs hosted by dwarf galaxies*

Advisors: Prof. Jonelle Walsh, Dr. Guang Yang

### Post-baccalaureate research assistant

Berkeley, CA, USA

Advisors (on separate projects): Prof. Gibor Basri, Dr. Laurie Pearce

Jan 2020–Jul 2020

### University of California, Berkeley (UC Berkeley)

Berkeley, CA, USA

BA in Astrophysics, BA in Physics

Aug 2016–Dec 2019

## PUBLICATIONS

---

1. **Tan, J.**; Yang, G.; Walsh, J. L.; Bauer, F. E.; Brandt, W. N.; Chen, C.-T.; Luo, B.; Sun, M.; Xue, Y.; et al. “Do tidal disruption events power the AGNs observed in dwarf galaxies?”, in prep.
2. Breger, G.; **Tan, J.**; and Pearce, L. E.. “Heuristics for the Study of Neo-Assyrian Letters: Then and Now”, in prep.
3. Hauschild Roier, G. R.; Storch-Bergmann, T.; McDermid, R. M.; Walsh, J. L.; **Tan, J.**; Cohn, J.; et al, “Gas inflows in the polar ring of NGC 4111: the birth of an AGN”, [MNRAS 2022, 512, 2556](#).
4. Basri, G.; Streichenberger, T.; McWard, C.; Edmond IV, L.; **Tan, J.**; Lee, M.; Melton, T.. “A New Method for Estimating Starspot Lifetimes Based on Autocorrelation Functions”, [ApJ 2022, 924, 31](#)
5. **Tan, J.** and Basri, G.. “Double-dipping to Refine Stellar Rotation Periods”, [Astron. Nachr. 2020; 341: 513–518](#).

## HONORS & AWARDS

---

**Departmental Merit Fellowship, Department of Physics & Astronomy, TAMU** 2020–2022  
Fellowship awarded to incoming graduate students.

**Undergraduate Research Apprentice Program (URAP) Apprentice** 2018–2019  
Worked with **Dr. Laurie Pearce** and **Gil Breger** on *Computational Ancient Astronomy and Reproducible Research*.

## SKILLS

---

### Computer Languages

Python, IDL, L<sup>A</sup>T<sub>E</sub>X, bash, git, R

### Other Software

PyRAF/IRAF, CIAO, X-CIGALE, pPXF, LabVIEW, CUDA, PyGAD

### Languages

*Native*: English, Mandarin Chinese; *Advanced*: Malay;

*Beginner/Intermediate*: Cantonese, Norwegian, French, German, Korean

## TALKS & PRESENTATIONS

---

<b>Coffee Talk, Institute for Astronomy, Royal Observatory</b> <i>Edinburgh, United Kingdom</i> (Invited)	<i>Oct 2023</i>
<b>Astrophysics Group Seminar, UCL Dept of Space and Climate Physics</b> <i>Dorking, United Kingdom</i> (Invited)	<i>Jun 2023</i>
<b>XV IMPRS Symposium</b> <i>Garching, Germany</i> (Contributed)	<i>Jun 2023</i>
<b>Global Malaysian Astronomers' Convention (GMAC)</b> <i>Kuala Lumpur, Malaysia</i> (Invited)	<i>Jan 2023</i>
<b>Astronomy Poster Summer Intern Symposium (APSYS), UC Berkeley</b> <i>Berkeley, CA</i> (Contributed poster)	<i>Aug 2019</i>
<b>The Interplay of Prosopography, Astronomy, and Graphology, LMU München</b> <i>Munich, Germany</i> (Invited)	<i>Jul 2018</i>

## PROFESSIONAL MEMBERSHIP & SERVICE

---

<b>Academic Council member</b> , Malaysia Olympiad on Astronomy & Astrophysics	<i>2023–</i>
<b>LOC member</b> , The Multiphase Circumgalactic Medium, <i>Ringberg, Germany</i>	<i>2023</i>
<b>Member of the Steering Committee &amp; Co-Lead of the Publicity Working Group</b> , GMAC 2023, <i>Kuala Lumpur, Malaysia</i>	<i>2022–2023</i>

## TEACHING & GRADING EXPERIENCE

---

<b>Graduate Student Instructor, TAMU</b> Physics 201: College Physics (Lab)	<i>Fall 2020, Spring 2021</i>
<b>Undergraduate Student Instructor, UC Berkeley</b> Astro 120: Optical & Infrared Astronomy Lab	<i>Fall 2019</i>
<b>Course Grader, UC Berkeley</b> – Astro C161: Relativistic Astrophysics and Cosmology	<i>Spring 2020</i>
– Astro C12: The Planets	<i>Spring 2019</i>
– Physics 77: Intro to Computational Techniques in Physics	<i>Spring 2019</i>
– Astro C10: Introduction to General Astronomy	<i>Fall 2018</i>

## OUTREACH EXPERIENCE

---

Volunteered at the “Meet-an-Astronomer” event at GMAC 2023’s pre-conference roadshow, <i>Kuala Lumpur, Malaysia</i>	<i>2023</i>
As the Astronomy Coordinator of the <i>Society of Women in the Physical Sciences</i> , helped organize and coordinate club events, workshops, and tea or meetings with colloquium speakers, <i>Berkeley, CA</i>	<i>2018–2019</i>
Volunteered for departmental outreach events organized by the Department of Astronomy, e.g., Astronomy Night (monthly), Bay Area Science Festival (annual), Cal Day (annual), joint commencement with the Department of Physics, <i>Berkeley, CA</i>	<i>2017–2019</i>
As a member of the <i>Undergraduate Astronomy Society</i> , mentored lowerclassmen and transfer students to help them transition into the school and department community, <i>Berkeley, CA</i>	<i>2017–2019</i>