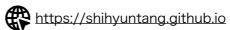
# Shih-Yun Tang 湯士昀

Interested in searching for the youngest exoplanet around T Tauri stars with the radial velocity technique, exploring brown dwarf/free-floating planets' atmosphere with 1D radiative-convective model, and studying stellar groups in the Solar neighborhood with Gaia data.





#### **Northern Arizona University**

Dept. of Astronomy & Planetary Science Flagstaff, AZ 86011, USA **Lowell Observatory** 1400 West Mars Hill Road Flagstaff, AZ 86001, USA

#### **Education**

- Ph.D., Astronomy and Planetary Sciences, Northern Arizona University, Flagstaff, AZ, USA Jan. 2020 — Present
  - · Advisors: Dr. Lisa Prato and Prof. Tyler Robinson
- M.S., Physics, National Central University, Taiwan (GPA 3.88/4.0)

Sep. 2017 — June 2019

- · Advisor: Prof. Wen-Ping Chen
- B.A., Physics, National Central University, Taiwan (GPA 3.80/4.0)

Sep. 2013 —June 2017

· Advisor: Prof. Wen-Ping Chen

#### **Awards/Scholarship**

- 2018 The Physics Society of Taiwan, Undergraduate Excellent Thesis Award
- 2018 Scholarship for Outstanding Student
- 2018 Fellowship of MPIA summer internship (full financial support)
- 2018 Taiwan Physics Society Annual Meeting Poster Award
- 2017 The ICT Solution Provider scholarship
- 2016 Fellowship for Exchange Student
- 2016 Astronomy Society R.O.C. Annual Meeting Poster Award

#### **Research Experience**

- Graduate Research Assistant, Lowell Observatory (Jan. 2020 Present)
  - · Advisor: Dr. Lisa Prato
- Graduate Research Assistant, National Central University, Astronomy Institute, Taiwan (Sep. 2017 June 2019)
  - · Advisor: Prof. Wen-Ping Chen
- Undergraduate Research Assistant, National Central University, Astronomy Institute, Taiwan (Jan. 2015 —Sep 2016)
  - · Advisor: Prof. Wen-Ping Chen

#### Internship

- Max-Planck-Institute for Astronomy, Germany (July 2018– Sep. 2018)
  - · Advisor: Dr. Bertrand Goldman & Dr. Chien-Cheng Lin
  - Topic: Multi-dimensional parameterization of members in nearby star clusters: Gaia DR2 and photometric distancing
- The Chinese University of Hong Kong (Jun. 2016–Aug. 2016)
  - · Advisor: Prof. Li, Hua-bai
  - **Topic**: Optical performance testing of the ASTE polarimeter for the ASTE telescope

Last update: May 26 2021

## **Successful Proposals**

- PI: Gemini, Fast Turnaround/GNIRS, 1.5 hours, program ID: GN-2017B-FT-18
- Co-I: CFHT, SPIRou, 19 hours, program ID: 20BH33

## **Open Source Projects | GitHub**

- IGRINS RV: https://github.com/shihyuntang/igrins rv

A python open source pipeline for extracting radial velocity (RV) for the Immersion GRating INfrared Spectrometer (IGRINS) instrument.

## Publications | 4/8 1st author | h-index: 4

- ☆ 2021: **Tang, Shih-Yun**; Robinson, Tyler D.; Marley, Mark S. et al., Impacts of Water Latent Heat on the Thermal Structure of Ultra-Cool Objects: Brown Dwarfs and Free-Floating Planets, The Astronomical Journal, submitted.
- 2021: Tang, Shih-Yun; Stahl, Asa G.; Johns-Krull, Christopher M. et al., IGRINS RV: A Python package for precision radial velocities with Near-Infrared Spectra, The Journal of Open Source Software, submitted.
- 2021: Stahl, Asa G.; Tang, Shih-Yun; Johns-Krull, Christopher M. et al., IGRINS RV: A Precision RV Pipeline for IGRINS Using Modified Forward-Modeling in the Near-Infrared, The Astronomical Journal, 161:283.
- 2021: Pang, Xiao-Ying; Li, Yuqian; Yu, Zeqiu; **Tang, Shih-Yun** et al., 3D Morphology of Open Clusters in the Solar Neighborhood, The Astrophysical Journal, 912:162.
- 2020: Pang, Xiao-Ying; Li, Yuqian; **Tang, Shih-Yun** et al., *Different Fates of Young Star Clusters after Gas Expulsion*, The Astrophysical Journal Letters, 900:L4.
- 2020: Zhang, Yu; **Tang, Shih-Yun**\*; Chen, W. P. et al., Diagnosing the Stellar Population and Tidal Structure of the Blanco 1 Star Cluster, The Astrophysical Journal, 889:99.
- 2019: **Tang, Shih-Yun**; Pang, Xiao-Ying; Yuan, Zhen et al., Disrupted Open Clusters with tidal tails: Coma Berenices and its neighboring group, The Astrophysical Journal, 877:12.
- ☆ 2018: **Tang, Shih-Yun**; Chen, W. P.; Chiang, P. S. et al., Characterization of Stellar and Substellar Members in the Coma Berenices Star Cluster, The Astrophysical Journal, 862:106.

#### **Conference/WorkShop**

- The 6<sup>th</sup> Emerging Researchers in Exoplanet Science Symposium (May 24-26, 2021) Talk
  - Topic: Impact of Water Latent Heat for Ultra-cool Object's Thermal Structures: Brown Dwarfs and Free-Floating Planets
- Micro-Workshop for Stellar Initial Mass Function and Molecular Core Mass Function (Nov. 2019 @Taipei, Taiwan) — Talk
  - **Topic**: Mass Function in the Nearby Open Clusters
- 2019 The Astronomical Society of the Republic of China (Taiwan) annual meeting Talk
- Star Cluster Workshop (Apl. 2019 @Kunming, China) Talk
  - Topic: Discovery of Tidal Tails in Disrupting Open Clusters: Coma Berenices and a Neighbor Stellar Group
- ESO Workshop: A revolution in stellar physics with Gaia and large surveys (Sep. 2018
  @Warsaw, Poland) Poster
  - Topic: Multi-dimensional Parameterization of Members in Nearby Star Clusters: Gaia DR2 and Photometric Distancing
- Star Cluster Workshop (Jul. 2018 @Xinjiang, China) Talk
  - Topic: Characterization of Stellar and Substellar Members in the Coma Berenices Star Cluster
- 2018 The Astronomical Society of the Republic of China (Taiwan) annual meeting Talk