

# Lin Yen-Hsing

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Github: [α Aquilae](#)

Publication list: [ADS](#)

**Personal Website** (more detailed information!)



## ACADEMIC EXPERIENCE

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### Institute of Astronomy and Astrophysics, Academia Sinica

Taipei, Taiwan

Undergraduate Student, PI: Dr. Hiroyuki Hirashita

2019 – 2021

- Investigating the effect of geometry and dust grain size distribution on the SED of high redshift galaxies using radiation transfer code SKIRT.

### Institute of Astronomy, NTHU

Hsinchu, Taiwan

Undergraduate / Master Student, PI: Prof. Hsiang-Yi Karen Yang

2020 – 2023

- Investigating cosmic ray dominated AGN jet mode feedback with 3D CRMHD simulations using FLASH, with focus on cosmic ray composition and odd radio circles (ORCs).

### Department of Astronomy, UCSD

California, US

PhD Student, PI: Dusan Keres

2024 –

## SCIENTIFIC PUBLICATIONS

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1. **Yen-Hsing Lin**, Hiroyuki Hirashita, Peter Camps, Maarten Baes, "Geometry effects on dust attenuation curves with different grain sources at high redshift", Monthly Notices of the Royal Astronomical Society, Volume 507, Issue 2, October 2021, Pages 2755-2765
2. Yuan-Ming Hsu, Hiroyuki Hirashita, **Yen-Hsing Lin**, Peter Camps, Maarten Baes, "Effects of dust sources on dust attenuation properties in IllustrisTNG galaxies at  $z \sim 7$ ", Monthly Notices of the Royal Astronomical Society, Volume 519, Issue 2, February 2023, Pages 2475-2485.
3. **Yen-Hsing Lin**, H.-Y. Karen Yang, Ellis R. Owen, "Evolution and feedback of AGN Jets of different Cosmic-ray Composition", Monthly Notices of the Royal Astronomical Society, Volume 520, Issue 1, March 2023, Pages 963-975.
4. **Yen-Hsing Lin**, H.-Y. Karen Yang, "AGN jet-inflated bubbles as possible origin of odd radio circles", ApJ, Vol 974, Page 269.

## AWARDS AND SCHOLARSHIPS

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**NSTC**: National Science and Technology Council; **NCTS**: National Center for Theoretical Sciences

**TPS**: Physical Society of Taiwan; **ASROC**: The Astronomical Society of the Republic of China (Taiwan)

- **2024 J.Yang Scholarship**

- UCSD, 2024.05.20.

- **2024 NTHU Hsing Jian award**

- The award recognize for outstanding performance in extracurricular activities, 2024.04.11.

- **UCSD A&A Inclusive Excellence Award**

- UCSD, 2024.04.10.

- **The Katzin Fellowship**

- UCSD, 2024.04.10.
- **2024 TPS annual meeting oral competition: Merit award**
- Title: Odd radio circles as cosmic-ray dominated AGN jet-inflated bubbles, 2024.01.26.
- **2023 TPS Postgraduates Student Thesis Award (Special Excellence)**
- Master thesis: Simulating the effects of cosmic-ray dominated black-hole jets in galaxy clusters, 2023.12.18.
- **2023 NSTC Graduate Research Fellowship**
- 2023.10.19. 4 years. 40000 NTD ( $\sim 1300$  USD) per month.
- **2023 ASROC oral competition: Merit award**
- Title: Could odd radio circles be end-on AGN jet inflated bubbles?, 2023.05.21
- **2023 NTHU College of Science Elite Student Award**
- **2023 TPS annual meeting poster competition: Merit award**
- Title: Simulating the effects of cosmic-ray dominated jets in cool-core clusters, 2023.01.18
- **2022 TPS Undergraduates Student Thesis Award**
- Paper: “Geometry effects on dust attenuation curves with different grain sources at high redshift”, 2022.12.12.
- **2022 NCTS Student Outstanding Paper Award**
- Paper: “Geometry effects on dust attenuation curves with different grain sources at high redshift”, 2022 Summer.
- **2022 TPS Annual Meeting Poster Competition: Honorable Mention**
- Annual Meeting of the Physical Society of Taiwan, 2022.01.25.
- **2021 NTHU Physics Poster Competition: 1<sup>st</sup> place**
- NTHU Physics Department. 2021.12.29.

## INVITED TALKS

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1. **NTHU IoA Seminar Series**
  - AGN jet-inflated bubbles as possible origin of odd radio circles. 2024.05.21
2. **NCTS annual theory meeting**
  - Simulating the effects of cosmic-ray dominated jets in galaxy clusters. 2022.12.14
3. **NCTS outstanding student paper award ceremony**
  - Geometry effect on dust attenuation curves of different grain sources in high redshift, 2022.09.23
4. **NCTS astrophysics seminar**
  - Evolution of AGN Jets of different cosmic-ray composition, 2022.08.26.
5. **NTU physics department student seminar**
  - Geometry effect on dust attenuation in high redshift / Evolution of AGN jets of different cosmic-ray composition, 2021.05.13

## OBSERVATION PROPOSALS

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1. **Lulin Observatory (2024B)**
  - PI, accepted. Title: Refine the ephemerides of exoplanets for the Ariel Space Telescope. 2024.04.19
2. **Lulin Observatory (2024C)**
  - PI, accepted. Title: Refine the ephemerides of exoplanets for the Ariel Space Telescope. 2024.08.20
3. **Steward Observatory Kuiper 61 inches telescope (2025A)**
  - Co-I, accepted. Title: Ephemerides refinement of sub-Neptune TOI-4479b. 2024.12.11

#### 4. Lulin Observatory (2025A)

- PI, accepted. Title: Exoplanets ephemerides refinement for the Ariel Space Telescope. 2024.12.18

#### 5. Lulin Observatory (2025B)

- PI, accepted. Title: Exoplanet ephemerides refinement for the Ariel Space Telescope. 2025.04.24

## TEACHING

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- **Advisor of astronomy club** 2019 – 2022  
*National Hsinchu Girl's Senior High School, Taiwan*  
*Teaching high school students about astronomy knowledge, telescope operation and club management.*
- **Teaching assistant: NTHU Physics Department** 2021 – 2023  
*General Physics B (2021), Introduction to Black Hole Astrophysics (2022, 2023), Fundamental Observational Astronomy (2022), Taiwan astronomy observation network observer training camp (2022)*
- **Teaching assistant: NTHU Institute of Astronomy** 2022 – 2023  
*Computational Astrophysics (2022), High Energy Astrophysics (2023)*
- **Teaching assistant: NTHU The center of teaching and learning development** 2022 – 2023  
*Supermassive black holes and active galaxies (MOOCS course, 2022)*
- **Teaching assistant: HCHS Earth Science Competition Team** 2017 – 2024  
*I've been training talented students in my high school for the International Earth Science Olympiad (IESO).*  
*Two of my students recently won silver medal in IESO 2022.*
- **Teaching assistant: UCSD Department of Astronomy** 2024 – Current  
*Stellar Astrophysics (2024)*

## RECENT CONTRIBUTED TALKS

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Since 2023.

1. **2024 UCSD Astro Journal Club (Oral)**
  - Could Odd Radio Circles be end-on AGN jet inflated bubbles?, 2024.10.18
2. **2024 TPS annual meeting (Oral)**
  - Could Odd Radio Circles be end-on AGN jet inflated bubbles?, 2024.01.25
3. **2024 Taipei Astronomy Workshop (Oral)**
  - Could Odd Radio Circles be end-on AGN jet inflated bubbles?, 2024.01.09
4. **2023 ASROC annual meeting (Oral)**
  - Could Odd Radio Circles be end-on AGN jet inflated bubbles?, 2023.05.21
5. **2023 TPS annual meeting (Poster)**
  - Simulating the effects of cosmic-ray dominated jets in cool-core clusters, 2023.01.18

## EXTRACURRICULAR ACTIVITIES

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- **EASY Astronomy and Earth Science promotion team** 2017 – Current  
*Vice Coordinator and Chief Editor for FB, IG, Blogger and Patreon.*  
*We have roughly 10000 followers on Facebook, 2000 on Instagram,*  
*and long-term collaborations with Science Monthly, Pansci, and Scientific American Taiwan Edition.*
- **Astronomy Club of University Union in Taiwan (ACUUT)** 2019 – Current

*Supervisor (2021 – 2023)*

*Science Communication Working Group: Chief editor (2021 – Current)*

*Camp of Leadership: Coordinator (2021), Staff (2022)*

*Workshop Coordinator: Space Technologies (2022), Astrophotography (2022)*

- NTHU Astronomy Club 2017 – 2024  
*Education officer (2018 – 2019) / Vice director (2019 – 2020)*  
*Founder and host of [Astrophysics Study Group](#) (2018 – 2020)*
- NTHU Observatory 2018 – Current  
*Minor contribution with no official position (2018 – 2023)*  
*Observation operator (2023 – Current)*
- The Exoclock Project 2023 – Current  
*Exoplanet ephemerides monitoring through amateur observatories around the world.*  
*I'm a contributing observer, with 81 exoplanet transit observations published so far.*

## SELECTED POPULAR SCIENCE / EDUCATIONAL PUBLICATIONS

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The complete list of  $\sim 40$  publications can be found on [my website](#). Articles on *Science Monthly* are reviewed by anonymous, professor-level reviewers, while articles on *Pansci* are reviewed by their editors.

1. **Lin Yen-Hsing**, Wen-Hsin Chen, “[The History of the Troubled Jovian Moon Exploration.](#)”, Scientific American Taiwan Edition, August 2023
2. **Lin Yen-Hsing**, “[The science behind JWST's first images](#)”, Pansci, July 2022.
3. **Lin Yen-Hsing**, “[Fermi Bubbles: The ultra hot remanent of SMBH jets](#)”, Pansci, April 2022.
4. **Lin Yen-Hsing**, “[Creating an universe in lab: Cosmological Simulations](#)”, Science Monthly, May 2021

## SELECTED PUBLIC TALKS

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I have given more than 50 talks with a broad topic (astrophysics, science communication, astronomy community, and so on) and audience (from elementary school to graduated astrophysics students) since 2019.

1. **The Kaleidoscope of Satellite Orbits**
  - 2021.03.09, Nanshan High School. (Junior high school students)
2. **Physical principles in observational astronomy**
  - 2022.07.10, Malaysia Olympiad on Astronomy and Astrophysics (MOAA) guest lecture. (Talented high school students)
3. **Scientific Presentation: Oral, Poster and Pop-Science**
  - 2023.02.12, NTHU Astronomy Club Astrophysics study group seminar. (Undergraduate students)
4. **A new force in Taiwan's astronomy community: Astronomy Club Union of Universities of Taiwan (ACUUT)**
  - 2021.11.27, NTHU Astronomy Club 50<sup>th</sup> anniversary. (General public)

This CV is created by modifying Doruk Çetin's Simple-CV template.  
Last update on April 25, 2025.