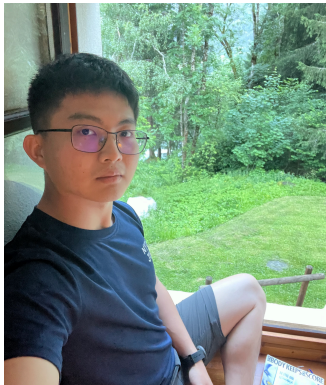


# WUN-YI CHEN

---



---

## Affiliation

ASIAA, Taipei, Taiwan

NTU, Taipei, Taiwan

## Contact Information

+886 965-153-831

[f09244001@g.ntu.edu.tw](mailto:f09244001@g.ntu.edu.tw)

No.1, Sec. 4, Roosevelt Rd.

Taipei, Taiwan 10617

---

## OBJECTIVE

To apply for NSTC-DAAD Sandwich Program.

## EDUCATION

**National Taiwan University. Taipei, Taiwan**

**2021- Now**

**Ph.D. Direct Track**

Graduate Institute of Astrophysics

- Ph.D. Candidate

**National Taiwan University. Taipei, Taiwan**

**2020-2021**

**Master**

Graduate Institute of Astrophysics

- GPA (4.17/4.3)

**National Taiwan University. Taipei, Taiwan**

**2015-2020**

**Bachelors Double-Major**

Business Administration and Department of Physics

**Technical University of Munich. Munich, Germany**

**2017-2018**

**Exchange Program**

TUM School of Management

- Exchange program in Munich.

## RESEARCH EXPERIENCE

**Academia Sinica, Taipei, Taiwan**

**2018- Now**

**Institute of Astronomy and Astrophysics**

**Ke-Jung Chen's Cosmic Explosion Group**

*Multidimensional Radiation Hydrodynamics Simulations of SN 1987a, RSGs, and Confined Shell CSM Shock Breakout*

- Utilize CASTRO via HPC with C, C++, fortran90 and Python
- Develop state-of-the-art shock breakout simulation
- Resolve drawbacks in previous study and provide realistic estimation on shock breakout dynamics and CSM

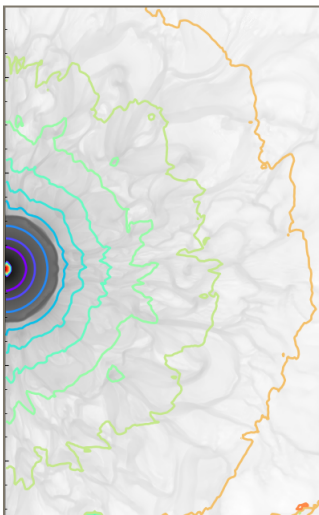
**HITS, Heidelberg, Germany**

**2025 Summer**

**Fritz Roepke PSO Group**

*Confined-Shell CSM on SN Shock Breakout*

- Cooperate with PSO binary common envelope groups.
- Map time dependent mass-loss rate to confined shell CSM.
- Confined Shell CSM paper in preparation.



## PUBLICATION

- Wun-Yi Chen, Ke-Jung Chen, Masaomi Ono,  
*Multidimensional Radiation Hydrodynamics Simulations of Supernova 1987A Shock Breakout*, 2024 ApJ 976 147.  
doi:10.3847/1538-4357/ad7de3.

## AWARDS

- DAAD-NSTC Summer Institute Program, 2025
- Chung Hwa Rotary Education Foundation Scholarship, 2025
- NSTC Subsidy for Domestic Graduate Students to Attend International Academic Conferences, 2024
- Financial Support from *Interstellar Shocks School of Les Houches*, 2022
- Ph.D. Direct Track Scholarship, 2020-2024
- Top Admission: Graduate Institute of Astrophysics, 2020

## CONFERENCE

- Wun-Yi Chen, Ke-Jung Chen, Masaomi Ono, Po-Sheng Ou. (2025 Spring). *2D RHD Shock Breakout of RSG with CSM*. Poster in 2025 Cosmic Explosion Meeting at RIKEN, Japan.
- Wun-Yi Chen, Ke-Jung Chen, Masaomi Ono (2024 Summer). *Multidimensional Radiation Hydrodynamics Simulations of Supernova 1987A Shock Breakout. 1-min Oral Presentations in SNRIII at Crete, Greece*.
- Wun-Yi Chen, Ke-Jung Chen, Masaomi Ono, Po-Sheng Ou. (2024 Spring). *2D Radiation Shock Breakout of Rad Super Giant with Circumstellar Medium*. Poster section in 2024 TPS Annual Meeting.
- Wun-Yi Chen, Ke-Jung Chen (2024 Spring). *2D Radiation Hydrodynamics Simulations of Supernova 1987a Shock Breakout*. Poster section in 2024 TPS Annual Meeting.
- Deliver other 7 talks and 7 posters at inter-/national events

## REFEREE

### Dr. Ke-Jung Chen

- Assistant Research Fellow
- Academia Sinica Institute of Astronomy and Astrophysics
- chenken1229@gmail.com

---

### TA Experiences

- Radiation Hydrodynamics
  - Classical Mechanics
  - Modern Physics Lab
- 

---

### Interests

- Judo National Champion
  - 15-Year Practice of Piano
  - Outreach: Open Museum
-