



JIN-HONG CHEN (陈劲鸿)

Postdoc

Department of Physics, The University of
Hong Kong

+86 131-696-216-23

852 62517326

chenjh2@hku.hk

github.com/universpider

RESEARCH FIELD

My research field concerns the theory of tidal disruption events (TDEs) as well as other transients. In order to interpret the observational data and/or to predict their light curves and spectral evolution, I focus on the study of their dynamical properties and radiation features by means of analytical method and numerical simulation.

Accretion disk, Tidal disruption event, Hydrodynamic simulation, Multi-messenger astronomy, Star formation

EDUCATION

Ph.D in Astrophysics <i>Advisor: Rong-Feng Shen</i>	2019 – 2023
Sun Yat-sen University	Guangdong, China
Master in Astrophysics <i>Advisor: Rong-Feng Shen</i>	2016 – 2019
Sun Yat-sen University	Guangdong, China
Bachelor of Science in Applied Physics	2010 – 2014
China Jiliang University	Zhejiang, China

WORK EXPERIENCE

Postdoc	2023 – now
University of Hong Kong	Hong Kong
Epitaxial Process Technician	2014
Guangdong Zhaoxin Semiconductor Equipment Manufacturing Co., Ltd	Guangdong, China

PROJECTS AND RESEARCH

First-Author Publications

1. **Chen, J.-H.**, Dai, L., Liu, S.-F., Ou, J.-W., "Fate of the remnant in tidal stripping event: repeating and non-repeating", 2024, ApJ, 977, 1 ([ADS](#) / [arxiv](#))
2. **Chen, J.-H.**, Shen, R.-F., Liu, S.-F. "Tidal Stripping of a White Dwarf by an Intermediate-Mass Black Hole", 2023, ApJ, 947, 32 ([ADS](#) / [arxiv](#))
3. **Chen, J.-H.**, Dou, L.-M., Shen, R.-F., "AT 2019avd: A Tidal Disruption Event with a Two-phase Evolution", 2022, ApJ, 928, 63 ([ADS](#) / [arxiv](#))
4. **Chen, J.-H.**, Shen, R.-F., "Light Curves of Partial Tidal Disruption Events", 2021, ApJ, 914, 69 ([ADS](#) / [arxiv](#))
5. **Chen, J.-H.**, Shen, R.-F., "Tidal Disruption of a Main-sequence Star by an Intermediate-mass Black Hole: A Bright Decade", 2018, ApJ, 867, 20 ([ADS](#) / [arxiv](#))

Co-Authored Publications

1. Ye, C.-Q., **Chen, J.-H.**, et.al., "Gravitational Wave Observation of White Dwarf Tidal Stripping", 2024, MNRAS, 527, 27756 ([ADS](#) / [arxiv](#))

2. Zhang, W., Shu, X., **Chen, J.-H.**, et.al., "A Possible 250-Second X-Ray Quasi-Periodicity in the Fast Blue Optical Transient AT2018cow", 2022, RAA, 22,12 ([ADS](#) / [arxiv](#))
3. Pan, L., Ju, W., **Chen, J.-H.**, "An Exact Relation for Density Fluctuations in Compressible Turbulence", 2022, MNRAS, 514, 105 ([ADS](#))
4. Liu, X.-L., Dou, L.-M., **Chen, J.-H.**, Shen, R.-F., "The UV/Optical Peak and X-Ray Brightening in TDE Candidate AT 2019azh: A Case of Stream-Stream Collision and Delayed Accretion", 2022, ApJ, 925, 67 ([ADS](#) / [arxiv](#))

Other Publications, Proceedings and White Papers

1. Torres-Orjuela, A., Vazquez-Aceves, V., Xu, R., **Chen, J.-H.**, et.al., "GWnext 2024: Meeting Summary", 2024 ([arxiv](#))

CONFERENCES AND PRESENTATIONS

Invited Talk

2024 Joint Annual Conference of Physical Societies in Greater Bay Area, July 2024

GWnext 2024, March 2024

Lunch talk in South-Western Institute For Astronomy Research at Yunnan University, Apr. 2023

Group Seminar at The Kavli Institute for Astronomy and Astrophysics, Sep. 2022

Contributed Talk and Poster

2024 TDE and NT in Greece, Sep. 2024

Insight-HXMT Workshop, Jan. 2024, Contributed talk

CSST Workshop, Dec. 2023, Contributed talk

Astrophysical Black Holes: A Rapidly Moving Field, June 2023, Contributed talk

31st General Assembly International Astronomical Union, Aug. 2022, Contributed talk

23rd International Conference on General Relativity and Gravitation, July 2022, Contributed talk

13th Zhang Heng Astrophysics Seminar, May 2021, Contributed talk

13th "Jing Guang Xia" Astrophysics Seminar, Nov. 2020, Contributed talk

Yukawa International Seminar, Oct. 2019, Poster

Nuclear Astrophysics Seminar, Aug. 2018, Contributed talk

2nd Gravitational Wave and Astrophysics Seminar, May 2018, Poster

35th Jerusalem School in Theoretical Physics on Physics of Astronomical Transients, Dec. 2017, Poster

Observation and Study on Astronomical Transients, Nov. 2017, Contributed talk

Annual Meeting, Aug. 2017, Contributed talk

HONORS AND AWARDS

Our work earned recognition in the AAS Nova	Aug. 2023
Excellent PhD dissertation	Jun. 2023
Guangdong excellent graduate student in 2018-2019 school year	May. 2019
1st National Scholarship for graduate student	Oct. 2018
2nd "Cai Xia Zhan Chi"(彩霞展翅) Scholarship of Sun Yat-sen University	Oct. 2017

ACADEMIC SERVICE AND ACTIVITY

Referee for: ApJL and MNRAS

Large High Altitude Air Shower Observatory (LHAASO)

Assist to construct Water Cerenkov Detector Array (WCDA) in LHAASO

Jul. 2019 – Sep. 2019

Daocheng, China

SKILLS

Programming: Fortran, Python, MATLAB, C, IDL

Hydrodynamic Code: FLASH, Zeus

Radiative Transfer Code: Sedona

Stellar Evolution Code: MESA

Data Analytics Tool: HEASoft, Xspec, emcee