



## JIN-HONG CHEN (陈劲鸿)

Ph.D candidate

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[github.com/universpider](https://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 with FLASH/Zeus, Multi-messenger astronomy, Star formation*

### EDUCATION

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

### PROJECTS AND RESEARCH

1. **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](#))
2. **Chen, J.-H.**, Shen, R.-F., "Light Curves of Partial Tidal Disruption Events", 2021, ApJ, 914, 69 ([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., Liu, S.-F. "Tidal Stripping of a White Dwarf by an Intermediate-Mass Black Hole", 2023, ApJ, 928, 63 (in revision), ([ADS](#) / [arxiv](#))
5. 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](#))
6. Pan, L., Ju, W., **Chen, J.-H.**, "An Exact Relation for Density Fluctuations in Compressible Turbulence", 2022, MNRAS, 514, 105 ([ADS](#))
7. 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](#))

### CONFERENCES AND PRESENTATIONS

<b>Annual Meeting</b> Host: Chinese Astronomical Society    Venue: Urumqi, Xinjiang Province	Aug. 2017 Contributed talk
<b>Observation and Study on Astronomical Transients</b> Host: Wuhan University    Venue: Wuhan University	Nov. 2017 Contributed talk

<b>35<sup>th</sup> Jerusalem School in Theoretical Physics on Physics of Astronomical Transients</b>	Dec. 2017
Host: Israel Institute for Advanced Studies    Venue: Hebrew University	Poster presentation
<b>2<sup>nd</sup> Gravitational Wave and Astrophysics Seminar</b>	May 2018
Host: Xiamen University    Venue: Xiamen, Fujian province	Poster presentation
<b>Nuclear Astrophysics Seminar</b>	Aug. 2018
Host: Wuhan University    Venue: Enshi, Hubei province	Contributed talk
<b>Yukawa International Seminar</b>	Oct. 2019
Host: Yukawa Institute for Theoretical Physics    Venue: Kyoto University	Poster presentation
<b>13<sup>th</sup> "Jing Guang Xia" Astrophysics Seminar</b>	Nov. 2020
Host: Xiamen University    Venue: Xiamen, Fujian province	Contributed talk
<b>13<sup>th</sup> Zhang Heng Astrophysics Seminar</b>	May 2021
Host: Chinese Astronomical Society    Venue: Dali, Yunnan province	Contributed talk
<b>23<sup>rd</sup> International Conference on General Relativity and Gravitation</b>	July 2022
Host: Chinese Academy of Sciences    Venue: Liyang, Jiangsu province	Contributed talk
<b>31<sup>st</sup> General Assembly International Astronomical Union</b>	August 2022
Host: Korean Astronomical Society    Venue: Busan, Republic of Korea	e-talk

## HONORS AND AWARDS

<b>2<sup>nd</sup> "Cai Xia Zhan Chi" (彩霞展翅) Scholarship of Sun Yat-sen University</b>	Oct. 2017
<b>1<sup>st</sup> National Scholarship for graduate student</b>	Oct. 2018
<b>Guangdong excellent graduate student in 2018-2019 school year</b>	May. 2019

## ACADEMIC SERVICE AND ACTIVITY

<b>Summer School in Computational Astrophysics</b>	Jul. 2017
Study smoothed partical hydrodynamics (SPH)	Tsung-Dao Lee Institute, China
<b>Large High Altitude Air Shower Observatory (LHAASO)</b>	Jul. 2019 – Sep. 2019
Assist to construct Water Cerenkov Detector Array (WCDA) in LHAASO	Daocheng, China
<b>A Reviewer for Monthly Notices of the Royal Astronomical Society (MNRAS)</b>	

## SKILLS

**Languages:** English - advanced level (IELTS 6.0), Chinese - native language, Cantonese - native language  
**Programming:** Fortran, Python, MATLAB, C, IDL  
**Hydrodynamic Code:** FLASH, Zeus  
**Data Analytics Tool:** HEAsoft, Xspec, emcee

## VOLUNTEER EXPERIENCE

<b>Animal Protection Association</b>	Octorber. 2021 – Now
1. Rescued a stray female dog and her nine new-born babies	
2. Sterilized the female dog and found them loving new families	
3. Adopted a lovely homeless male dog, named him Bobby	
<b>Blue Sea Protection in School of Physics and Astronomy</b>	Jul. 2021 – Now
Collect the plastic waste along the beach with students and teachers	