



JIN-HONG CHEN (陈劲鸿)

Postdoc

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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

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| Ph.D in Astrophysics <i>Advisor: Rong-Feng Shen</i> Sun Yat-sen University | Aug. 2019 – Jun. 2023 Guangdong, China |
| Master in Astrophysics <i>Advisor: Rong-Feng Shen</i> Sun Yat-sen University | Aug. 2016 – Jun. 2019 Guangdong, China |
| Bachelor of Science in Applied Physics 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, 947, 32, ([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](#))
8. Ye, C.-Q., **Chen, J.-H.**, et.al., "Gravitational Wave Observation of White Dwarf Tidal Stripping", 2023, submitted to MNRAS ([arxiv](#))

CONFERENCES AND PRESENTATIONS

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|---|----------------------------------|
| Annual Meeting Host: Chinese Astronomical Society Venue: Urumqi, Xinjiang Province | Aug. 2017 Contributed talk |
| Observation and Study on Astronomical Transients Host: Wuhan University Venue: Wuhan University | Nov. 2017 Contributed talk |
| 35th Jerusalem School in Theoretical Physics on Physics of Astronomical Transients Host: Israel Institute for Advanced Studies Venue: Hebrew University | Dec. 2017 Poster presentation |
| 2nd Gravitational Wave and Astrophysics Seminar Host: Xiamen University Venue: Xiamen, Fujian province | May 2018 Poster presentation |
| Nuclear Astrophysics Seminar Host: Wuhan University Venue: Enshi, Hubei province | Aug. 2018 Contributed talk |
| Yukawa International Seminar Host: Yukawa Institute for Theoretical Physics Venue: Kyoto University | Oct. 2019 Poster presentation |
| 13th "Jing Guang Xia" Astrophysics Seminar Host: Xiamen University Venue: Xiamen, Fujian province | Nov. 2020 Contributed talk |
| 13th Zhang Heng Astrophysics Seminar Host: Chinese Astronomical Society Venue: Dali, Yunnan province | May 2021 Contributed talk |
| 23rd International Conference on General Relativity and Gravitation Host: Chinese Academy of Sciences Venue: Liyang, Jiangsu province | July 2022 Contributed talk |
| 31st General Assembly International Astronomical Union Host: Korean Astronomical Society Venue: Busan, Republic of Korea | Aug. 2022 e-talk |
| Group Seminar at The Kavli Institute for Astronomy and Astrophysics Host: The Kavli Institute for Astronomy and Astrophysics Venue: Peking University | Sep. 2022 Invited talk |
| Lunch talk in South-Western Institute For Astronomy Research at Yunnan University Host: SWIFAR at Yunnan University Venue: Yunnan University | Apr. 2023 Invited talk |
| Astrophysical Black Holes: A Rapidly Moving Field Host: Department of Physics at The University of Hong Kong Venue: Hong Kong | June 2023 Contributed talk |

HONORS AND AWARDS

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

ACADEMIC SERVICE AND ACTIVITY

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

SKILLS

Programming: Fortran, Python, MATLAB, C, IDL

Hydrodynamic Code: FLASH, Zeus

Data Analytics Tool: HEAsoft, Xspec, emcee

VOLUNTEER EXPERIENCE

Animal Protection Association

Oct. 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

Blue Sea Protection in School of Physics and Astronomy

Jul. 2021 – Feb. 2023

Collect the plastic waste along the beach with students and teachers