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基本信息

年龄: 27 岁 生日: 1998/11/02 籍贯: 四川省达州市 现居住地: 德国-法兰克福-Riedbergallee

研究兴趣

- 引力波的引力透镜效应 📌 波动光学, 几何光学, 天体物理与宇宙学应用
- 致密双星的形成与演化 📌 公共包层演化, 超新星爆发机制, 脉冲星磁场演化
- 致密双星并合的多信使信号 📌 引力波, 千新星, 短伽玛射线暴及其余辉辐射

研究与教育经历

- 2026 – 至今 📌 访问博士后 德国法兰克福歌德大学理论物理研究所
- 2025 – 至今 📌 博士后 国家天文台银河系三维结构团组, 合作导师: 刘继峰研究员
- 2021 – 2025 📌 天体物理博士 国家天文台引力波天体物理团组, 导师: 陆由俊教授
- 2017 – 2021 📌 天文学学士 国科大天文与空间科学学院, 班主任: 刘继峰研究员, 导师: 陆由俊教授

其他经历

主要奖励

- 2025 📌 优秀博士毕业生, 北京市教育委员会
- 2023 📌 博士国家奖学金, 中国教育部
- 2021 📌 优秀本科毕业生, 北京市教育委员会
- 2019 📌 本科生国家奖学金, 中国教育部

教学经历

- 2025 📌 助教, 现代天体物理科学概论, 陆由俊教授, 中国科学院大学
- 2021 📌 助教, 高等天文学, 刘继峰研究员, 中国科学院大学

学生工作

- 2023-2024 📌 主席, 国家天文台研究生会
- 2021-2022 📌 主席, 国科大天文学院研究生会

已发表学术论文

目前已发表 14 篇论文，其中 11 篇为第一作者论文

- 1 **Z. Chen** and Y. Lu, “Gravitational Lensing of Gravitational Waves from Astrophysical Sources: Theory, Detection, and Applications,” *Invited Review in RAA*, vol. 26, no. 6, p. 062 001, Jun. 2026, Art. no. 062001.  DOI: 10.1088/1674-4527/ae4bad arXiv: 2605.06321 [astro-ph.HE].
- 2 **Z. Chen** et al., “Detectability of nearby binary neutron stars with future sub-mHz gravitational wave missions,” *PhRvD*, vol. 113, no. 8, p. 084 013, Apr. 2026, Art. no. 084013.  DOI: 10.1103/lhc6-jjxb arXiv: 2603.16386 [astro-ph.HE].
- 3 K. Song, Y. Lu, **Z. Chen**, and H. Ma, “Can lensed eccentric supermassive binary black holes be identified via their distorted nanohertz gravitational waveforms?” *PhRvD*, vol. 113, no. 2, p. 023 022, Jan. 2026, Art. no. 023022.  DOI: 10.1103/8y1j-4wrf
- 4 **Z. Chen**, Y. Lu, H. Ma, and Q. Chu, “Luminosity functions and detectability of binary neutron star merger-nova signals with various merger remnants,” *MNRAS*, vol. 544, no. 4, pp. 3883–3899, Dec. 2025.  DOI: 10.1093/mnras/staf1865 arXiv: 2510.23115 [astro-ph.HE].
- 5 **Z. Chen**, Q. Yu, Y. Lu, and X. Guo, “Enhanced Localization of Dark Lensed Gravitational-wave Events Enables Host Galaxy Identification and Precise Cosmological Inference,” *ApJ Letters*, vol. 993, no. 2, p. L57, Nov. 2025, Art. no. L57.  DOI: 10.3847/2041-8213/ae1226 arXiv: 2510.12470 [astro-ph.CO].
- 6 **Z. Chen**, J. Zhang, Y. Lu, J. Liu, and C. Zeng, “Constraining common envelope evolution in binary neutron star formation with combined galactic and gravitational-wave observations,” *MNRAS Letter*, vol. 544, no. 1, pp. L89–L95, Nov. 2025.  DOI: 10.1093/mnrasl/slaf105 arXiv: 2508.14397 [astro-ph.HE].
- 7 **Z. Chen**, Y. Lu, and Y. Chen, “Detectability of Strongly Gravitationally Lensed Tidal Disruption Events,” *ApJ*, vol. 962, no. 1, p. 3, Feb. 2024, Art. no. 3.  DOI: 10.3847/1538-4357/ad19d3 arXiv: 2401.00992 [astro-ph.HE].
- 8 **Z. Chen**, Y. Lu, J. Wang, Z. Jiang, Q. Chu, and X. Ma, “On the Cosmic Variance of the Merger Rate Density of Binary Neutron Stars,” *ApJ*, vol. 973, no. 2, p. 159, Oct. 2024, Art. no. 159.  DOI: 10.3847/1538-4357/ad6de0 arXiv: 2408.16968 [astro-ph.HE].
- 9 **Z. Chen** et al., “Detection Rate of Galaxy Cluster-lensed Stellar Binary Black Hole Mergers by the Third-generation Gravitational-wave Detectors,” *ApJ*, vol. 977, no. 1, p. 64, Dec. 2024, Art. no. 64.  DOI: 10.3847/1538-4357/ad8b44 arXiv: 2410.20701 [astro-ph.HE].
- 10 **Z. Chen**, “Event Rate of Strongly Lensed Gravitational Waves of Stellar Binary Black Hole Mergers Produced by Dynamical Interactions,” *ApJ*, vol. 953, no. 1, p. 36, Aug. 2023, Art. no. 36.  DOI: 10.3847/1538-4357/ace045 arXiv: 2307.01427 [astro-ph.HE].
- 11 H. Ma, Y. Lu, **Z. Chen**, and Y. Chen, “Diffractive lensing of nano-Hertz gravitational waves emitted from supermassive binary black holes by intervening galaxies,” *MNRAS*, vol. 524, no. 2, pp. 2954–2965, Sep. 2023.  DOI: 10.1093/mnras/stad2040 arXiv: 2307.02742 [astro-ph.CO].

- 12 Y. Zhao, Y. Lu, C. Yan, **Z. Chen**, and W.-T. Ni, “Multiband gravitational wave observations of stellar binary black holes at the low to middle and high frequencies,” *MNRAS*, vol. 522, no. 2, pp. 2951–2966, Jun. 2023. [DOI](#): 10.1093/mnras/stad1107 arXiv: 2306.02636 [astro-ph.HE].
- 13 D.-F. Bu, E. Qiao, X.-H. Yang, J. Liu, **Z. Chen**, and Y. Wu, “Radiative hydrodynamical simulations of super-Eddington accretion flow in tidal disruption event: the origin of optical/UV emission,” *MNRAS*, vol. 516, no. 2, pp. 2833–2839, Oct. 2022. [DOI](#): 10.1093/mnras/stac2399
- 14 **Z. Chen**, Y. Lu, and Y. Zhao, “Constraining the Origin of Stellar Binary Black Hole Mergers by Detections of Their Lensed Host Galaxies and Gravitational Wave Signals,” *ApJ*, vol. 940, no. 1, p. 17, Nov. 2022, Art. no. 17. [DOI](#): 10.3847/1538-4357/ac98b7 arXiv: 2210.09892 [astro-ph.HE].