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ORCID

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Employment 工作经历

- 2022/07 – Now 至今 ··· · **Postdoc 博后** KIAA at Peking University  
北京大学科维理天文与天体物理研究所
- 2023/03 – 2026/03 ··· · **LAMOST fellow 青年研究员** Peking University

Education 教育背景

- 2016-09 to 2022-06 **Ph.D. student (Astrophysics)** Huazhong University of Science and Technology 华中科技大学博士生  
Thesis title: *Multi-wavelength variability and spectral evolution of changing-look active galactic nuclei*  
毕业论文: 变脸活动星系核多波段观测与能谱演化
- 2019-04 to 2022-06 **Joint Ph.D. student** Shanghai Astronomical Observatory 上海天文台联培博士生
- 2012-09 to 2016-06 **Undergraduate (Physics)** Huazhong University of Science and Technology 华中科技大学本科生

Research Interests 研究方向

|                   |                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CLAGN/XRB         | Study the mechanism of optical and X-ray changing-look active galactic nuclei (CLAGN) with multi-waveband observations<br>利用多波段观测研究光学和 X 射线变脸活动星系核的物理机制<br>Study the link between Black hole X-ray Binary (XRB) and CLAGN<br>对比研究黑洞 X 射线双星与变脸活动星系核的联系                                                                                                                                  |
| LAMOST QSO survey | Report the quasar properties from Data Release 10 to 12 in the series of the Large Sky Area Multi-Object Fiber Spectroscopic Telescope (LAMOST) Quasar Survey<br>郭守敬望远镜第 10-12 期类星体巡天及物理性质研究<br>Search for rare AGNs such as Bowen Fluorescence Flares (BFFs), broad absorption line quasars (BAL), and extremely variable quasars (EVQs)<br>利用郭守敬望远光谱和多波段数据研究特殊类星体, 如宽吸收线类星体, 极端光变类星体 |
| AGN/host          | Search for dying AGNs and try to understand the lifecycles of AGNs and their impact on host galaxy formation and evolution<br>搜寻中心引擎熄灭活动星系核, 理解活动星系核中的超大质量黑洞与宿主星系共同演化                                                                                                                                                                                                                  |

Facilities

|             |                                                                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instruments | 紫外 X 射线 UV/X-ray (Swift, XMM, Nustar, Chandra, HXMT, NICER, EP)<br>射电 Radio imaging (VLA, MWA)<br>红外 MIR (WISE, jwst)<br>光学 Optical (ZTF, SDSS, 郭守敬望远镜 LAMOST, 兴隆 Xinglong-2.16m 望远镜, 丽江 Lijiang-2.4m 望远镜) |
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## Research Publications 1st-Author 第一/通讯作者论文

- 1 **Lyu, B.**, Wu, X.-B., Jin, J.-J., Fu, Y., Pang, Y., Wang, H., ... Huo, Z.-y. (2025). The Large Sky Area Multi-object Fiber Spectroscopic Telescope (LAMOST) Quasar Survey: Quasar Properties from Data Release 10 to 12. *arXiv e-prints, ApJs accepted*, arXiv:2512.02836. [doi:10.48550/arXiv.2512.02836](https://doi.org/10.48550/arXiv.2512.02836). arXiv: 2512.02836 [astro-ph.GA]
- 2 **Lyu, B.**, Yan, Z., Wu, X.-b., Wu, Q., Yu, W., & Liu, H. (2025). The NuSTAR view of five changing-look active galactic nuclei. *MNRAS*, 537(2), 1099–1114. [doi:10.1093/mnras/staf109](https://doi.org/10.1093/mnras/staf109). arXiv: 2501.09602 [astro-ph.HE]
- 3 **Lyu, B.**, Wu, X.-B., Pang, Y., Wang, H., Zhu, R., Fu, Y., ... Wang, F. (2025). The changing-look AGN SDSS J101152.98+544206.4 is returning to a type I state. *A&A*, 693, A173. [doi:10.1051/0004-6361/202451699](https://doi.org/10.1051/0004-6361/202451699). arXiv: 2412.16879 [astro-ph.HE]
- 4 **Lyu, B.**, Wu, Q., Yan, Z., Yu, W., & Liu, H. (2022). WISE View of Changing-look Active Galactic Nuclei: Evidence for a Transitional Stage of AGNs. *ApJ*, 927(2), 227. [doi:10.3847/1538-4357/ac5256](https://doi.org/10.3847/1538-4357/ac5256). arXiv: 2202.02718 [astro-ph.HE]
- 5 **Lyu, B.**, Yan, Z., Yu, W., & Wu, Q. (2021). Long-term and multiwavelength evolution of a changing-look AGN Mrk 1018. *MNRAS*, 506(3), 4188–4198. [doi:10.1093/mnras/stab1581](https://doi.org/10.1093/mnras/stab1581). arXiv: 2106.03059 [astro-ph.HE]

## Research Publications 2nd/3rd-Author 重要贡献论文

- 1 Kang, S.-J., **Lyu, B.**, Wu, Q., Zheng, Y.-G., & Fan, J. (2024). The Physical Properties of Changing-look Blazars. *ApJ*, 962(2), 122. [doi:10.3847/1538-4357/ad0fdf](https://doi.org/10.3847/1538-4357/ad0fdf). arXiv: 2403.00078 [astro-ph.HE]
- 2 Liu, H., Wu, Q., & **Lyu, B.** (2022). Coevolution of Broad Emission Lines and X-Ray Spectrum in Changing-look AGNs. *ApJ*, 930(1), 46. [doi:10.3847/1538-4357/ac5fa5](https://doi.org/10.3847/1538-4357/ac5fa5). arXiv: 2206.02011 [astro-ph.HE]

## Research Publications other Co-Author 其他发表论文

- 1 Wang, H., Wu, X.-B., Yao, N., **Lyu, B.**, Pang, Y., Fu, Y., ... Yang, Q. (2026). Systematic Analysis of Changing-Look Active Galactic Nucleus Variability Using ZTF Light Curves. *ApJ*, 997(1), 100. [doi:10.3847/1538-4357/ae1fdc](https://doi.org/10.3847/1538-4357/ae1fdc)
- 2 Wu, J., Wu, Q., Hu, C., **Lyu, B.**, Bai, H.-R., Fu, Y.-X., ... Cao, X. (2025). A Composite Broad-line Region in SDSS J1609+4902: A Double-peaked Disk Component and a Gaussian Component. *ApJ*, 987(1), 14. [doi:10.3847/1538-4357/ade2cc](https://doi.org/10.3847/1538-4357/ade2cc). arXiv: 2506.07161 [astro-ph.GA]
- 3 Huo, Z.-Y., Fu, Y., Huang, Y., Yuan, H., Wu, X.-B., Xiang, M., ... Jin, J. (2025). Finding Quasars behind the Galactic Plane. III. Spectroscopic Identifications of  $\sim 1300$  New Quasars at  $|b| \leq 20$  degree from LAMOST DR10. *ApJS*, 278(1), 6. [doi:10.3847/1538-4365/adba52](https://doi.org/10.3847/1538-4365/adba52). arXiv: 2502.05480 [astro-ph.GA]
- 4 Zhang, C., Wu, Q., Fan, X., Ho, L. C., Wu, J., Zhang, H., ... Wang, J. (2025). The Composite Spectrum of the Little Red Dots from an Inner Standard Disk and an Outer Gravitationally Unstable Disk. *arXiv e-prints, Nature Astronomy accepted*, arXiv:2505.12719. [doi:10.48550/arXiv.2505.12719](https://doi.org/10.48550/arXiv.2505.12719). arXiv: 2505.12719 [astro-ph.HE]
- 5 Pang, Y., Wu, X.-B., Fu, Y., Zhu, R., **Lyu, B.**, Wang, H., & Feng, X. (2025). A Pilot Study for the CSST Slitless Spectroscopic Quasar Survey Based on Mock Data. *ApJ*, 980(2), 223. [doi:10.3847/1538-4357/adabdc](https://doi.org/10.3847/1538-4357/adabdc). arXiv: 2501.12665 [astro-ph.GA]
- 6 Wu, J., Wu, Q., Jin, C., Wu, J., Lei, W., Cao, X., ... **Lyu, B.** (2024). The Weakness of Soft X-Ray Intensity: Possible Physical Reason for Weak-line Quasars. *ApJ*, 965(1), 84. [doi:10.3847/1538-4357/ad2a53](https://doi.org/10.3847/1538-4357/ad2a53). arXiv: 2402.10414 [astro-ph.HE]
- 7 Shi, Z., Wu, Q., Yan, Z., **Lyu, B.**, & Liu, H. (2023). A new variability pattern in GRS 1915+105 with NICER and Insight-HXMT observations. *MNRAS*, 525(1), 1431–1442. [doi:10.1093/mnras/stad2061](https://doi.org/10.1093/mnras/stad2061). arXiv: 2307.07954 [astro-ph.HE]
- 8 Wu, J., Wu, Q., Xue, H., Lei, W., & **Lyu, B.** (2023). Steep Balmer Decrement in Weak AGNs May Not Be Caused by Dust Extinction: Clues from Low-luminosity AGNs and Changing-look AGNs. *ApJ*, 950(2), 106. [doi:10.3847/1538-4357/acce9e](https://doi.org/10.3847/1538-4357/acce9e). arXiv: 2304.09435 [astro-ph.GA]