Yuexin ZHANG

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Education

Kapteyn Astronomical Institute, University of Groningen, NL Oct 2019 – now
PhD Candidate in Astronomy. Advisor: Mariano Méndez and Diego Altamirano

Department of Physics, Fudan University, CN Sep 2015 – June 2019
B.S. (*Honor*) in Physics. Advisor: Cosimo Bambi

Hamburg University, DE Jul 2018
Summer Exchange Student

Employment

Kapteyn Astronomical Institute, University of Groningen, NL Oct 2019 – now
PhD Employee

Institute of High-Energy Physics, CAS, CN Mar 2021 – May 2022
Visiting Researcher

Department of Physics, Fudan University, CN Jul 2020 – Dec 2020
Visiting Researcher

Shanghai Astronomical Observatory, CAS, CN Jun 2019 – Sep 2019
Summer Visiting Student

Honors

- ❖ CSC and UoG Joint Scholarship 2019 – 2023
- ❖ Shanghai Outstanding Graduate 2019
- ❖ Wangdao Scholar (named after the former president of Fudan) 2019

Obervation

[1] *Insight*-HXMT, PI: Zhang, 10 ks on GRS 1915+105

Publications

[1] García, F., Karpouzas, K., Méndez, M., Zhang, L., **Zhang, Y.**, Belloni, T., & Altamirano, D. (2022). The evolving properties of the corona of GRS 1915+105: a spectral-timing perspective through variable-Comptonization modelling. *Monthly Notices of the Royal Astronomical Society*, 513(3), 4196-4207.

[2] Méndez, M., Karpouzas, K., García, F., Zhang, L., **Zhang, Y.**, Belloni, T. M., & Altamirano, D. (2022). Coupling between the accreting corona and the relativistic jet in the microquasar GRS 1915+105. *Nature Astronomy*, 6(5), 577-583.

[3] **Zhang, Y.**, Méndez, M., García, F., Zhang, S. N., Karpouzas, K., Altamirano, D., ... & Bellavita, C. (2022). The evolution of the corona in MAXI J1535-571 through type-C quasi-periodic oscillations with Insight-HXMT. *Monthly Notices of the Royal Astronomical Society*, 512(2), 2686-2696.

[4] **Zhang, Y.**, Méndez, M., García, F., Karpouzas, K., Zhang, L., Liu, H., ... & Altamirano, D. (2022). The evolution of the high-frequency variability in the black hole

candidate GRS 1915+105 as seen by RXTE. *Monthly Notices of the Royal Astronomical Society*.

[5] Yang, Z. X., Liang, Z., Bu, Q. C., Yue, H., Lin, H. X., Yu, W., ... & Xiao, Y. X. (2022). The accretion flow geometry of MAXI J1820+070 through broadband noise research with Insight-HXMT. arXiv preprint arXiv:2204.00739.

[6] Liu, H., Fu, Y., Bambi, C., Jiang, J., Parker, M. L., Ji, L., ... & **Zhang, Y.** (2022). The disk wind in GRS 1915+105 as seen by Insight-HXMT. arXiv preprint arXiv:2203.02659.

[7] Karpouzas, K., Méndez, M., García, F., Zhang, L., Altamirano, D., Belloni, T., & **Zhang, Y.** (2021). A variable corona for GRS 1915+105. *Monthly Notices of the Royal Astronomical Society*, 503(4), 5522-5533.

[8] Abdikamalov, A. B., Ayzenberg, D., Bambi, C., Liu, H.,& **Zhang, Y.** (2021). Implementation of a radial disk ionization profile in the relxill_nk model. *Physical Review D*, 103(10), 103023.

[9] Tripathi, A., **Zhang, Y.**, Abdikamalov, A. B., Ayzenberg, D., Bambi, C., Jiang, J., ... & Zhou, M. (2021). Testing general relativity with NuSTAR data of galactic black holes. *The Astrophysical Journal*, 913(2), 79.

[10] Liu, H., Ji, L., Bambi, C., Jain, P., Misra, R., Rawat, D., & **Zhang, Y.** (2021). Testing evolution of LFQPOs with mass accretion rate in GRS 1915+ 105 with Insight-HXMT. *The Astrophysical Journal*, 909(1), 63.

[11] **Zhang, Y.**, Abdikamalov, A. B., Ayzenberg, D., Bambi, C., & Nampalliwar, S. (2019). Tests of the Kerr hypothesis with GRS 1915+105 using different RELXILL flavors. *The Astrophysical Journal*, 884(2), 147.

[12] **Zhang, Y.**, Abdikamalov, A., Ayzenberg, D., Bambi, C., Dauser, T., García, J., & Nampalliwar, S. (2019). About the Kerr nature of the stellar-mass black hole in GRS 1915+105, *The Astrophysical Journal*, 875 (1), 41.

[13] **Zhang, Y.**, Zhou, M., & Bambi, C. (2018). Iron line spectroscopy of black holes in asymptotically safe gravity. *The European Physical Journal C*, 78 (5), 376.

Conferences

[1]	44th COSPAR scientific assembly, Athens, GR	16–24 Jul 2022
[2]	Black hole accretion under the X-ray microscope, Madrid, ES	14–17 Jun 2022
[3]	China astronomy annual meeting (online), Nanchong, CN	2–6 Dec 2022
[4]	10th China-EU *Insight*-HXMT video meeting (online), Beijing, CN	5–6 May 2022
[5]	9th China-EU *Insight*-HXMT video meeting (online), Beijing, CN	11–12 Oct 2021
[6]	China-India workshop on high energy astrophysics (online), Shanghai, CN	6–8 Nov 2020
[7]	Accretion 2020 @Fudan (online), Shanghai, CN	21–23 Oct 2020
[8]	The future of X-ray timing, Amsterdam, NL	21–25 Oct 2019
[9]	Recent progress in relativistic astrophysics, Shanghai, CN	6–8 May 2019