

Personal Information	<p>Name: Youli TUO</p> <p>Current status: Postdoctoral Researcher</p> <p>Gender: Male</p> <p>Year of birth: 1993</p> <p>✉ tuoyl@ihep.ac.cn</p> <p>🌐 www.youlituo.pro</p> <p>🐙 www.github.com/tuoyl</p> <p>🔗 https://code.ihep.ac.cn/tuoyl</p> <p>Language: Chinese (native), English (professional proficiency)</p>
Employment	<p>Postdoc, Institute of High Energy Physics, Beijing, China 2020.11-present</p>
Education	<p>Institute of High Energy Physics, Chinese Academy of Science 2015.09–2020.09</p> <p>Ph.D degree in High Energy Astrophysics</p> <p><i>Supervisor:</i> Liming Song</p> <p><i>Thesis title:</i> Study of the high-energy properties of pulsars observed by Insight-HXMT</p> <p>Yunnan University, Kunming, China 2011.09–2015.06</p> <p>Bachelor's degree in Mathematics and Physics</p>
Computer Skills	<p>Operating systems: MacOS, Windows, GNU/Linux.</p> <p>languages: Python, GNU Bash, C++, \LaTeX</p> <p>Scientific softwares HXMTDAS, heasoft, Xspec, TEMPO2</p>
Refereed Publications († : 1 st /2 nd author)	<p>There are 4 papers published as first/second author; 2324 citation in total, including 20 citations of the first/second-author publications.</p> <p>13.† Study on the X-ray pulse profile and spectrum of the Crab pulsar using NICER and Insight-HXMT' s Observations Lin-Li Yan, You-Li Tuo, Ming-Yu Ge, Fang-Jun Lu, Shi-Jie Zheng, and Ling-Jun Wang, Accepted for publication by ApJ, 2022;</p> <p>12. On-ground and on-orbit time calibrations of GECAM Xiao, S. Liu, Y. Q.; Peng, W. X.; An, Z. H.; Xiong, S. L.; Tuo, Y. L.; ..., and Zhang, S. N. Accepted for publication by MNRAS, 2022</p> <p>11. Synchronous X-ray/Optical QPOs from the Black Hole LMXB MAXI J1820+070 Thomas, Jessymol K.; Buckley, David A. H.; Charles, Philip A., ..., Tuo, Youli, and Zhang, Shuang-Nan, MNRAS: Letters, 2021</p> <p>10. Relation of Cyclotron Resonant Energy and Luminosity in a Strongly Magnetized Neutron Star GRO J1008-57 Observed by Insight-HXMT Chen, X.; Wang, W.; Tang, Y. M.; Ding, Y. Z.; Tuo, Y. L.; ..., and J.L. Qu, ApJ, 919, 33, 2021</p> <p>9.† In-orbit timing calibration of the Insight-Hard X-ray Modulation Telescope; Tuo Youli, Li Xiaobo, Ge Mingyu, ..., and Li Bing, Accepted for publication by ApJS, 2021;</p> <p>8. Estimating the Black Hole Spin for the X-Ray Binary MAXI J1820+070 Zhao, Xueshan ; Gou, Lijun ; Dong, Yanting; Tuo, Youli; Liao, Zhenxuan; Li, Yufeng ; Jia, Nan; Feng, Ye; Steiner, James F., ApJ, 916(2), 14, 2021</p> <p>7. Spectral evolution of X-ray pulsar 4U 1901+03 during the 2019 outburst based on Insight-HXMT and NuSTAR observations Nabizadeh, Armin; Tsygankov, Sergey S.; Ji, Long; Doroshenko, Victor; Molkov, Sergey V. ;Tuo, Youli; Zhang, Shuang-Nan; Lu, Fan-Jun; Zhang, Shu; Poutanen, Juri, A&A, 652, 12, 2021</p> <p>6. HXMT identification of a non-thermal X-ray burst from SGR J1935+2154 and with FRB 200428 C. Li, L. Lin, S. Xiong, M. Ge, X. Li, T. Li, F. Lu, S-N. Zhang, Y. Tuo, ..., and Insight-HXMT collaboration, Nature Astronomy,5,378,2021</p>

- 5.† **Insight-HXMT observations of jet-like corona in a black hole X-ray binary MAXI J1820+070**
Bei You, [Yuoli. Tuo](#), Chengzhe Li, Wei Wang, Shuang-Nan Zhang, ..., and Insight-HXMT collaboration, [Nature Communication](#), **12**, 1025, 2021
- 4.† **Insight-HXMT insight into switch of the accretion mode: The case of the X-ray pulsar 4U 1901+03**
[Y.L. Tuo](#), L. Ji, S.S. Tsygankov, T. Mihara, L.M. Song, ..., and Insight-HXMT collaboration, [Journal of High Energy Astrophysics](#), **27**, 38, 2020
- 3.† **Insight-HXMT observations of the Crab pulsar**
[Y.L. Tuo](#), M.Y. Ge, L.M. Song, L.L. Yan, Q.C. Bu, and J.L. Qu., [Research in Astronomy and Astrophysics](#), **19**, 087, 2019
2. **Time evolution of the X-ray and gamma-ray fluxes of the Crab pulsar**
L.L. Yan, M.Y. Ge, F.J. Lu, S.J. Zheng, [Y.L. Tuo](#), Z.J. Li, J.L. Qu, [ApJ](#), **865**(1), 21, 2018
1. **Multi-messenger Observations of a Binary Neutron Star Merger**
Abbott, B. P.; Abbott, R.; Abbott, T. D, ..., [Tuo, Y. L.](#); and 3673 more, [ApJL](#), **848**, L12, 2017
0. **Phase Evolution of the Crab pulsar between Radio and X-ray**
L.L. Yan, M.Y. Ge, J.P. Yuan, S.J. Zheng, F.J. Lu, [Y.L. Tuo](#), H. Tong, S. N. Zhang, Y. Lu, J.L. Han, and Y.J. Du, [ApJ](#), **845**(2), 119, 2017

Submitted Publications

- **Quasi-periodical oscillations of the X-ray burst from the magnetar SGR J1935+2154 and associated with the fast radio burst FRB 200428**
X.B. Li, M.Y. Ge, L. Lin, ..., [Y.L. Tuo](#), ..., and D.K. Zhou, to be submitted to ApJ

Presentations

- Beijing Astronomical Annual Meeting, Beijing, China November 2019
contributed talk: **Temporal study on HMXB 4U 1901+03 observed by Insight-HXMT**
- The Second Insight-HXMT Users Conference and X-ray binary workshop, Beijing, China July 2019
contributed talk: **Timing and spectral analysis using Insight-HXMT data** (Lecturing the usage of Insight-HXMT data analysis software)
- Insight-HXMT Users Workshop, Beijing, China December 2018
contributed talk: **Quick tour to Insight-HXMT/HE data processing** (Lecturing the usage of Insight-HXMT data analysis software)
- "New eyes on X-ray astrophysical objects with Japanese and Chinese observatories", the Japan-China X-ray astronomical workshop, Toyoko, Japan November 2018
[contributed talk](#): **Insight-HXMT observations of newly discovered XRB SwiftJ0243.6+6124**
- Annual colloquium of Chinese astronomical society, Kuming, China October, 2018
contributed talk: **Insight-HXMT observations of Crab pulsar**
- The 42ns COSPAR Scientific Assembly, Pasadena, USA July 2018
[poster](#): nsight-HXMT observations of newly discovered XRB SwiftJ0243.6+6124

**Software
Development**

- [HXMT pipeline](#): A pipeline tool that makes your life easier when analyzing HXMT data (used in multiple HXMT publications);
- [HXMT Docker Container](#): An integrated environment for Inishgt-HXMT data analysis (total 873 container pulls);
- [Pulsar analysis package](#): The Python package to perform timing analysis on the X-ray pulsars (used in [GECAM timing calibration paper](#), [HXMT timing calibration paper](#), and [X-ray Binary paper](#));
- [HXMT Burst Analysis](#): A supplementary tool for correcting the saturation effect of LE telescope on-board HXMT;

**Outreach
Experience**

- One of the co-translators, translating *Physics for Entertainment, Book 1* to Chinese 2021

(last update: February, 2022)