

<b>Personal Information</b>	<p>Name: Youli TUO</p> <p>Current status: Postdoctoral Researcher</p> <p>Gender: Male</p> <p>Year of birth: 1993</p> <p>✉ <a href="mailto:tuoyl@ihep.ac.cn">tuoyl@ihep.ac.cn</a></p> <p>🌐 <a href="http://www.youlituo.pro">www.youlituo.pro</a></p> <p>🐙 <a href="https://github.com/tuoyl">www.github.com/tuoyl</a></p> <p>🔗 <a href="https://code.ihep.ac.cn/tuoyl">https://code.ihep.ac.cn/tuoyl</a></p> <p>Language: Chinese (native), English (professional proficiency)</p>
<b>Employment</b>	<p>Postdoc, Institute of High Energy Physics, Beijing, China <span style="float:right">2020.11-present</span></p>
<b>Education</b>	<p>Institute of High Energy Physics, Chinese Academy of Science <span style="float:right">2015.09–2020.09</span></p> <p><b>Ph.D degree</b> 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 <span style="float:right">2011.09–2015.06</span></p> <p><b>Bachelor's degree</b> in Mathematics and Physics</p>
<b>Computer Skills</b>	<p><b>Operating systems:</b> MacOS, Windows, GNU/Linux.</p> <p><b>languages:</b> Python, GNU Bash, C++, L<sup>A</sup>T<sub>E</sub>X</p> <p><b>Scientific softwares</b> HXMTDAS, heasoft, Xspec, TEMPO2</p>
<b>Refereed Publications</b> († : 1 <sup>st</sup> /2 <sup>nd</sup> author) <a href="#">NASA/ADS Library Link</a>	<p>There are 4 papers published as first/second author; 2324 citation in total, including 20 citations of the first/second-author publications.</p> <ol style="list-style-type: none"> <li>13. <b>On-ground and on-orbit time calibrations of GECAM</b> Xiao, S. Liu, Y. Q.; Peng, W. X.; An, Z. H.; Xiong, S. L.; <a href="#">Tuo, Y. L.</a>; ..., and Zhang, S. N. <a href="#">Accepted for publication by MNRAS, 2022</a></li> <li>12. <b>Synchronous X-ray/Optical QPOs from the Black Hole LMXB MAXI J1820+070</b> Thomas, Jessymol K.; Buckley, David A. H.; Charles, Philip A., ..., <a href="#">Tuo, Youli</a>, and Zhang, Shuang-Nan, <a href="#">MNRAS: Letters, 2021</a></li> <li>11. <b>Relation of Cyclotron Resonant Energy and Luminosity in a Strongly Magnetized Neutron Star GRO J1008-57 Observed by Insight-HXMT</b> Chen, X.; Wang, W.; Tang, Y. M.; Ding, Y. Z.; <a href="#">Tuo, Y. L.</a>; ..., and J.L. Qu, <a href="#">ApJ, 919, 33, 2021</a></li> <li>10.† <b>In-orbit timing calibration of the Insight-Hard X-ray Modulation Telescope;</b> <a href="#">Tuo Youli</a>, Li Xiaobo, Ge Mingyu, ..., and Li Bing, <a href="#">Accepted for publication by ApJS, 2021;</a></li> <li>9. <b>Estimating the Black Hole Spin for the X-Ray Binary MAXI J1820+070</b> Zhao, Xueshan ; Gou, Lijun ; Dong, Yanting; <a href="#">Tuo, Youli</a>; Liao, Zhenxuan; Li, Yufeng ; Jia, Nan; Feng, Ye; Steiner, James F., <a href="#">ApJ, 916(2), 14, 2021</a></li> <li>8. <b>Spectral evolution of X-ray pulsar 4U 1901+03 during the 2019 outburst based on Insight-HXMT and NuSTAR observations</b> Nabizadeh, Armin; Tsygankov, Sergey S.; Ji, Long; Doroshenko, Victor; Molkov, Sergey V. ;<a href="#">Tuo, Youli</a>; Zhang, Shuang-Nan; Lu, Fan-Jun; Zhang, Shu; Poutanen, Juri, <a href="#">A&amp;A, 652, 12, 2021</a></li> <li>7. <b>HXMT identification of a non-thermal X-ray burst from SGR J1935+2154 and with FRB 200428</b> C. Li, L. Lin, S. Xiong, M. Ge, X. Li, T. Li, F. Lu, S-N. Zhang, <a href="#">Y. Tuo</a>, ..., and Insight-HXMT collaboration, <a href="#">Nature Astronomy,5,378,2021</a></li> <li>6.† <b>Insight-HXMT observations of jet-like corona in a black hole X-ray binary MAXI J1820+070</b> Bei You, <a href="#">Yuoli. Tuo</a>, Chengzhe Li, Wei Wang, Shuang-Nan Zhang, ..., and Insight-HXMT collaboration, <a href="#">Nature Communication, 12, 1025, 2021</a></li> </ol>

- 5.† **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
- 4.† **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
3. **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
2. **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
1. **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

- **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, submitted to ApJ
- **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 Insight-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