

<b>Personal Information</b>	Name: Youli TUO	
	Current status: Postdoctoral Researcher	
	Gender: Male	
	Year of birth: 1993	
	✉ <a href="mailto:youli.tuo@astro.uni-tuebingen.de">youli.tuo@astro.uni-tuebingen.de</a>	
	🔗 <a href="http://www.youlituo.pro">www.youlituo.pro</a>	
	🐙 <a href="https://github.com/tuoyl">www.github.com/tuoyl</a>	
	📄 <a href="https://code.ihep.ac.cn/tuoyl">https://code.ihep.ac.cn/tuoyl</a>	
	Language: Chinese (native), English (professional proficiency)	
<b>Employment</b>	Postdoctoral research, University of Tübingen, Germany	2022.12–2023.12 expected
	Postdoctoral research, Institute of High Energy Physics, Beijing, China	2020.11–2022.11
<b>Education</b>	Institute of High Energy Physics, Chinese Academy of Science <b>Ph.D degree</b> in High Energy Astrophysics <i>Supervisor:</i> Liming Song <i>Thesis title:</i> Study of the high-energy properties of pulsars observed by Insight-HXMT	2015.09–2020.09
	Yunnan University, Kunming, China <b>Bachelor's degree</b> in Mathematics and Physics	2011.09–2015.06
<b>Computer Skills</b>	<b>Operating systems:</b> MacOS, Windows, GNU/Linux. <b>languages:</b> Python, GNU Bash, C++ <b>Scientific softwares</b> HXMTDAS, heasoft, Xspec, TEMPO2, L <sup>A</sup> T <sub>E</sub> X	
<b>Refereed Publications</b> († : 1 <sup>st</sup> /2 <sup>nd</sup> author)	There are 5 papers published as first/second author; 2324 citation in total, including 34 citations of the first/second-author publications.	
<b>NASA/ADS Library Link</b>	<ol style="list-style-type: none"> <li>14.† <b>A Study on the X-Ray Pulse Profile and Spectrum of the Crab Pulsar Using NICER and Insight-HXMT's Observations</b> Lin-Li Yan, <a href="#">You-Li Tuo</a>, Ming-Yu Ge, Fang-Jun Lu, Shi-Jie Zheng, and Ling-Jun Wang, <i>ApJ</i>, 928, 2</li> <li>13.† <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, <i>ApJS</i>, 259(1), 14, 2022;</li> <li>12. <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. <i>MNRAS</i> 511, 964, 2022</li> <li>11. <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, <i>MNRAS: Letters</i>, 2021</li> <li>10. <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, <i>ApJ</i>, 919, 33, 2021</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., <i>ApJ</i>, 916(2), 14, 2022</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, <i>A&amp;A</i>, 652, 12, 2021</li> </ol>	

7. **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
- 6.† **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
- 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

- **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, Accepted for publication in [ApJ](#)

#### Presentations

- 3rd China-India Workshop on High Energy Astrophysics August 2020  
invited talk: **HXMT data analysis demonstration**
- 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);
- [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](#));
- [SVOM/GRM burst analysis tool](#): Python-based Gamma Burst Analysis Software for SVOM/GRM
- [HXMT Docker Container](#): An integrated environment for Inishgt-HXMT data analysis (total 873 container pulls);
- [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: December, 2022)