

Shu-Xu Yi

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RESEARCH INTERESTS

- Pulsars/pulsar binaries,
- Pulsar timing,
- Gravitational waves

EDUCATION

The University of Chinese Academy of Sciences, China, PhD in Astrophysics.
Thesis: "Applications of pulsar timing"
Advisor: Zhang, Shuang-Nan

2010/08-2016/08

Tsinghua University, China, Bachelor of Science.
Major: Math and Physics

2006/08-2010/08

APPOINTMENTS

The University of Hong Kong, Postdoctoral fellow; work with Prof. KS Cheng on pulsar high energy emission modeling

Since 2016/10

The Institute of High Energy Physics, Chinese Academy of Sciences, Research assistant

2012/06-2016/08

Peking University, visiting scholar; worked with Prof. KJ Lee on pulsar timing

2015/12-2016/02

The University of Manchester, visiting

2012/10-2013/10

scholar; worked with Prof. Stappers with
pulsar timing

HONORS & REWARDS

Crab prize, RMB 5000 Yuan, Future Pulsar Symposium 6, Wuhan
2017/06/28-30

Highlight talks, RMB 3000 Yuan in total, Annual Meeting of Beijing Astronomical
Society in 2011, 2012, 2015

OUTREACH

Lectures on astronomy for middle school students, 10 hours in total, 57th middle
school, Beijing, 2016

**Contributing editor of Journal Global
Science**, (Chinese edition of Scientific American) 2015

REFERENCES

Prof. Dr. Zhang, Shuang-Nan (Ph.D advisor)
Institute of High Energy Physics, Chinese Academy of Sciences, China
Email: zhangsn@ihep.ac.cn

Prof. Dr. Cheng, Kwong-Sang (Postdoc supervisor)
The University of Hong Kong, China
Email: hrspsc@hku.hk

Prof. Dr. Wu, Kinwah
University College London
Email: Kinwah.wu@ucl.ac.uk

LIST OF PUBLICATIONS

Published or Accepted for publication by peer reviewed Journals

1. **Shu-Xu Yi**, K. S. Cheng, Ronald E. Taam; *The growth of stellar mass black hole binaries trapped in an accretion disk of active galactic nuclei*. Accepted by ApJL 2018
<https://arxiv.org/abs/1805.07026>
2. **Shu-Xu Yi**, K. S. Cheng, *On the timing behavior of PSR B1259-63 under the propeller torque from a transient accretion disc*. MNRAS, 476, 766 (2018),
<http://adsabs.harvard.edu/abs/2018MNRAS.476..766Y>
3. **Shu-Xu Yi** , K. S. Cheng; *Probing the properties of the pulsar wind via studying the dispersive effects in the pulses from the pulsar companion in a double neutron-star binary system*, MNRAS,472,4007(2017), <http://adsabs.harvard.edu/abs/2017MNRAS.472.4007Y>
4. **Shu-Xu Yi** , K. S. Cheng; *Modeling the GeV emission of HESS J0632+057*, MNRAS,471,4228(2017), <http://adsabs.harvard.edu/abs/2017MNRAS.471.4228Y>
5. **Shu-Xu Yi** , K. S. Cheng; *A new approach to the GeV flare of PSR B1259-63/LS2883*, ApJ,844,114(2017), <http://adsabs.harvard.edu/abs/2017ApJ...844..114Y>
6. **Shu-Xu Yi**; *On gravitational wave-Cherenkov radiation from photons when passing through diffused dark matters*, Modern Physics Letters A, Volume 32, Issue 9, 2017
<http://adsabs.harvard.edu/abs/2017MPLA...3250059Y>
7. **Shu-Xu Yi**, Shuang-Nan Zhang; *Detecting super-Nyquist-frequency gravitational waves using a pulsar timing array*, Science China Physics, Mechanics & Astronomy, Volume 59, Issue 8, 2016. <http://adsabs.harvard.edu/abs/2016SCPMA..59h..95Y>
8. Xu-Dong Gao, Shuang-Nan Zhang, **Shu-Xu Yi** , Yi Xie, Jian-Ning Fu; *Understanding the residual patterns of timing solutions of radio pulsars with a model of magnetic field oscillation*, MNRAS,459,402(2016) <http://adsabs.harvard.edu/abs/2016MNRAS.459..402G>
9. **Shu-Xu Yi** , Shuang-Nan Zhang; *The evolution of the magnetic inclination angle as an explanation of the long term red timing-noise of pulsars*, MNRAS,454,3674(2015)
<http://adsabs.harvard.edu/abs/2015MNRAS.454.3674Y>
10. Yu Rong, **Shu-Xu Yi**, Shuang-Nan Zhang, *Radial alignment of elliptical galaxies by the tidal force of a cluster of galaxies*, MNRAS,451,2536(2015)
<http://adsabs.harvard.edu/abs/2015MNRAS.451.2536R>

11. Shan-shan Weng, Shuang-Nan Zhang, **Shu-Xu Yi**, Yu Rong, Xu-Dong Gao; X-ray softening during the 2008 outburst of XTE J1810-189, MNRAS,450,2915(2015) <http://adsabs.harvard.edu/abs/2015MNRAS.450.2915W>

12. **Shu-Xu Yi**, Benjamin Stappers, Sotiris Sanidas, et al.; Limits on the strength of individual gravitational wave sources using high-cadence observations of PSR B1937+21, MNRAS,445,1245(2014) <http://adsabs.harvard.edu/abs/2014MNRAS.445.1245Y>

Papers submitted to peer reviewed journals:

1. **Shu-Xu Yi**, K.S. Cheng, The growth of stellar mass black hole binaries trapped in an accretion disk of active galactic nuclei. Submitted to PRL

Other Publications:

1. Shuang-Nan Zhang, Yuan Liu, **Shu-Xu Yi**, Zigao Dai, Chao-guang Huang, Do we expect to detect electromagnetic radiation from merging stellar mass black binaries like GW150914? No <https://arxiv.org/abs/1604.02537>

2. Shuang-Nan Zhang, **Shu-Xu Yi**, On a Common Misunderstanding of the Birkhoff Theorem and Light Deflection Calculation: Generalized Shapiro Delay and its Possible Laboratory Test, International Journal of Modern Physics: Conference Series, Volume 12, pp. 419-430 (2012). <http://adsabs.harvard.edu/abs/2012IJMPS..12..419Z>