

Shu-Xu Yi

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RESEARCH INTERESTS

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

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 scholar; worked with Prof. Stappers with pulsar timing

2012/10-2013/10

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: hrspksc@hku.hk

Prof. Dr. Wu, Kinwah

University College London

Email: Kinwah.wu@ucl.ac.uk

Dr. Li Jian

Institute of Space Science (IEEC-CSIC), Barcelona, Spain

Email: jian@ieec.uab.es

LIST OF PUBLICATIONS

Published or Accepted for publication by peer reviewed Journals

1. **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*, accepted for publication in *MNRAS*, **2017**, <https://arxiv.org/abs/1708.09192>
2. **Shu-Xu Yi**, K. S. Cheng; *Modeling the GeV emission of HESS J0632+057*, *MNRAS*, Volume 471, Issue 4, p.4228-4233, **2017**
<http://adsabs.harvard.edu/abs/2017arXiv170708263Y>
3. **Shu-Xu Yi**, K. S. Cheng; *A new approach to the GeV flare of PSR B1259-63/LS2883*, *ApJ*, Volume 844, Issue 2, article id. 114, **2017**
<http://adsabs.harvard.edu/abs/2017ApJ...844..114Y>
4. **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>
5. **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>
6. 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*, Volume 459, Issue 1, p.402-418, **2016**
<http://adsabs.harvard.edu/abs/2016MNRAS.459..402G>
7. **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*, Volume 454, Issue 4, p.3674-3678, **2015**
<http://adsabs.harvard.edu/abs/2015MNRAS.454.3674Y>
8. Yu Rong, **Shu-Xu Yi**, Shuang-Nan Zhang, *Radial alignment of elliptical galaxies by the tidal force of a cluster of galaxies*, *MNRAS*, Volume 451, Issue 3, p.2536-2543, **2015**
<http://adsabs.harvard.edu/abs/2015MNRAS.451.2536R>
9. 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*, Volume 450, Issue 3, p.2915-2921, **2015** <http://adsabs.harvard.edu/abs/2015MNRAS.450.2915W>
10. **Shu-Xu Yi**, Benjamin Stappers, Sotiris Sanidas, Cees Bassa, Gemma Janssen, Andrew Lyne, Micheal Kramer, Shuang-Nan Zhang; *Limits on the strength of individual gravitational*

wave sources using high-cadence observations of PSR B1937+21, *MNRAS*, Volume 445, Issue 2, p.1245-1252, **2014** <http://adsabs.harvard.edu/abs/2014MNRAS.445.1245Y>

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>