Rui Luo

Curriculum Vitae

Kavli Institute for Astronomy and Astrophysics
Peking University, No.5 YiHeYuan Rd.
Haidian District, Beijing 100871, P. R. China
✉ *luorui1991@pku.edu.cn*
https://ruiluoastro.github.io/

Education

2013 - present **PhD candidate, Astrophysics**, *Department of Astronomy*, Peking University, Beijing, China.

Supervisor: Prof. Kejia Lee (KIAA-PKU)

2009 - 2013 **B.Sc., Applied Physics**, *School of Physics*, Huazhong University of Science and Technology, Wuhan, China.

Research Interests

Transients: Fast Radio Bursts (FRBs), Pulsars

Cosmology: Intergalactic medium, Cosmic magnetic field, Circum-galactic medium

Statistics: Bayesian Inference, MCMC

ML: Deep Neural Network

Awards

2013 - 2018 Second Academic Scholarship, Peking University

2016 Kwang-Hua Scholarship, Peking University

2016 Award for Scientific Research, Peking University

2015 Second Prize of Chen Huxiong Scholarship, Peking University

2015 Award for Community or Public Service, Peking University

2014 Merit Graduate Student, Peking University

2013 Annual Scholarship of National Astronomical Observatories, Chinese Academy of Sciences

Publications

First-author papers:

2 **Luo, R.**, Lee, K. J., et al., *On the quantified luminosity function*, in prep.

1 **Luo, R.**, Lee, K. J., Lorimer, D. R., & Zhang, B., *On the normalised FRB luminosity function*, 2018, MNRAS, 481, 2320

Contributed papers:

4 Yi, S.-X., Cheng, K. S., & **Luo, R.**,*Clumpy jets from black hole-massive star binaries as engines of Fast Radio Bursts*, 2018, MNRAS, **accepted** (arXiv: 1811.11146)

3 Wang, W. Y., Lu, J. G., Zhang, S. B., Chen, X. L., **Luo, R.**, & Xu, R. X., *Pulsar giant pulse: coherent instability near light cylinder*, 2018, SCPMA, **accepted** (arXiv:1805.00139)

2 Wang, W. Y., **Luo R.**, Yue, H., Chen, X. L., Lee, K. J., & Xu, R. X., *FRB 121102: A Starquake-induced Repeater?*, 2018, ApJ, 852, 140

1 Yang, Y.-P., **Luo, R.**, Li, Z., & Zhang, B.,*Large Host-galaxy Dispersion Measure of Fast Radio Bursts*, 2017, ApJ, 839, L25

Conferences & Talks

2018 NAOC Graduate Student Seminar, Beijing, China, Apr. 23, 2018
Invited talk: *A Review of Fast Radio Bursts and FRB luminosity function*

2017 Radio Astronomy Forum 2017, Pingtang, China, Sep. 24-27, 2017
Poster: *Simulating DM of host galaxies to derive FRB luminosity function*

2017 Pulsar Timing Array in China, Beijing, China, May 30-31, 2017
Contributed as LOC member

2017 FAST/Future Pulsar Symposium 6, Wuhan, China, Jun. 28-30, 2017
Contributed talk: *Simulating DM of host galaxies to derive FRB luminosity function*

2016 Chinese Astronomical Society 2016 Annual Meeting, Wuhan, China, Nov. 1-3, 2016
Contributed talk: *Simulating the dispersion measure of host galaxies*

2016 Jing-Guang-Xia Astrophysics Meeting, Xiamen, China, July 21-23, 2016
Contributed talk: *Simulating the dispersion measure of host galaxies*

2016 QTT Colloquium Series 2016, Zunyi, China, July 3-4, 2016
Contributed talk: *Simulating the dispersion measure of FRB host galaxies*

2016 PKU-XAO Bilateral Meeting, Urumqi, China, Jun. 10-13, 2015
Contributed talk: *Simulating the dispersion measure of FRB host galaxies*

2015 Chinese Astronomical Society 2015 Annual Meeting, Beijing, China, Oct. 19-21, 2015
Contributed talk: *Consideration of Research on FRBs*

2015 International Pulsar Timing Array 2015 Meeting, Parkes&Leura, Australia, July 19-31, 2015

2015 QTT Colloquium Series 2015, Ming'antu, China, July 2-3, 2015

Contributed talk: *Consideration of Research on FRBs*

2015 KIAA-SHAO Bilateral Workshop, Beijing, China, May 18-19, 2015

Contributed talk: *Consideration of FRB searching*

Observing Experience

Aug. 2017 At Kunming 40-m radio telescope

Contributions: installing FRB backend and configuring FRB searching software

Apr. 2016 At Five-hundred-meter Aperture Spherical radio Telescope

Contributions: configuring ROACH2 and monitoring frequency spectrum

Aug. 2015 At Miyun 50-m radio telescope

Contributions: installing ROACH2 and observing pulsars.

Oct. 2014 At Kunming 40-m radio telescope

Contributions: assisting calibration for two polarization channels of backend and observing pulsars.

Teaching Experience

2017 Teaching Assistant of General Physics for non-physics Schools, Peking University

2015 Teaching Assistant of Atomic Physics, School of Physics, Peking University

Technical Skills

Programming Python (Proficient), C, C++, Unix, Julia(Beginner)

Softwares Matlab, Mathematica, Qt

Writing LaTeX, Markdown

Web Wiki, Git, HTML

Language

English *Professional working proficiency*

Chinese *Native or bilingual proficiency*

Japanese *Basic words and phrases only*