

# Zhicheng He

Curriculum Vitae/Oct. 10, 2022

## **Contact Information**

Dept of Astronomy, University of Science and Technology of China

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## **APPOINTMENTS**

Dept. of Physics and Astronomy, University of Science and Technology of China, Hefei, China,

**Tenure-track professor**, Oct., 2022-present

**Research associate**, Dec. 2018 - Oct., 2022

## **Education**

09/2015-11/2018 Ph. D. in astrophysics, **University of Science and Technology of China**, Advisor: Prof. Tinggui Wang and Guilin Liu 09/2017-

09/2018 visiting graduate student, **The Johns Hopkins University**, Advisor: Prof. Nadia L. Zakamska

09/2012-06/2015 M.S. in Astronomy, **Nanjing Normal University/Purple Mountain Observatory**, China Advisor: Prof. Weihao Bian and Yizhong Fan

B.S. in Physics , **Nanjing Normal University**, China

## **Research Areas**

Active galaxy, Black hole physics, Cosmology

## **Research Funds**

National Natural Science Foundation, Excellent youth program, (NO. 12222304, 2023.01-2025.12) 2,000,000 RMB

National Natural Science Foundation, Youth program, (NO. 11903031, 2020.01-2022.12) 250,000 RMB

USTC Research Funds of the Double First-Class Initiative

(NO. YD 3440002001 2019.11-2021.11) 500,000 RMB

## **Invited Presentations**

The properties of broad absorption line outflows based on a large sample of quasars, Frontier Symposium on Galaxy Cosmology, Chinese Astronomical Society, Xiamen University, 05/2019

The connection between the star formation rate and evolutionary phases of quasars, University of Southampton /on line 12/2019

## **Selected Awards**

**TOP CITED PAPER AWARD of CHINA, AMERICAN ASTRONOMICAL SOCIETY/ IOP publishing (2020)**

**Excellent Doctoral Dissertation Award of USTC (2019)**

**President Award of Chinese Academy of Science (2017)**

Outstanding postgraduate thesis of Jiangsu Province, China (2016)

Outstanding postgraduate thesis of Nanjing Normal University (2016)

Graduate of excellent master of Nanjing Normal University (2015)

National Award for Postgraduate, Ministry of education of China (2014)

## **Selected Publications (First author/Corresponding author)**

14. Yijun Wang, **Zhicheng He\***, Junjie Mao, Jelle Kaastra, Yongquan Xue and Missagh Mehdipour, Density profile of ambient circumnuclear medium in Seyfert 1 galaxies, 2022, arXiv:2202.01502 (2022, ApJ, 928, 7)

13, **Zhicheng He\***, Guilin Liu\*, Tinggui Wang\*, Guobin Mou\*, Richard Green, Weihao Bian, Huiyuan Wang, Luis C. Ho, Mouyuan Sun, Lu Shen, Nahum Arav, Chen Chen, Qingwen Wu, Hengxiao Guo, Zesen Lin, Junyao Li and Weimin Yi, Evidence for quasar fast outflows being accelerated at the scale of tens of parsecs ([Science Advances](#) 8, eabk3291, 2022)

12, Zhi-Fu Chen\*, Minfeng Gu\*, **Zhicheng He\***, Defu Bu, Fulai Guo, Qiusheng Gu, Yiping Qin, The detections of inflowing gas from narrow absorption lines at the parsec scale, arXiv:2112.07189 (A&A, 2022, 659, A103)

11, Zhifu Chen, **Zhicheng He\***, Luis C. Ho, Qiusheng Gu, Tinggui Wang, Mingyang Zhuang, Guilin Liu, Zhiwen Wang, Evidence for the connection between star formation rate and evolutionary phases of quasars, 2022, [Nature Astronomy](#), 6, 339 (ESI top1% cited paper)

10. Xiaer Zhang, **Zhicheng He\***, Tinggui Wang and Hengxiao Guo, The Deviation of the Broad-line Region Size Between Reverberation Mapping and Spectroastrometry, 2021, accepted by ApJ, Arxiv:2104.11417

9. **Zhicheng He\***, Ning Jiang and Tinggui Wang et al., An Extraordinary Response of Iron Emission to the Central Outburst in a Tidal Disruption Event Candidate, 2021, ApJL, 907, L29 (IF=8.2)

8. Qinyuan Zhao, **Zhicheng He\***, Guilin Liu et al., A Sharp Rise in the Detection Rate of Broad Absorption Line Variations in a Quasar SDSS J141955.26+522741.1, 2021, ApJL (IF=8.2), 906, L8

7. **Zhicheng He\*** & Tinggui Wang et al., The properties of broad absorption line outflows based on a large sample of quasars, 2019, [Nature Astronomy](#), 3, 265

6. **Zhicheng He\***, Ailei Sun & Nadia Zakamska et al., Morphology of AGN Emission Line Regions in SDSS-IV MaNGA Survey, 2018, MNRAS (IF=5.23), 478, 3614

5. **Zhicheng He\***, Guilin Liu & Tinggui Wang et al., Leaked Ly $\alpha$  Emission: An Indicator of the Size of Quasar Absorption Outflows, ApJ (IF=5.58), 839, 77

4. **Zhicheng He\*** & Tinggui Wang et al., Variation of Ionizing Continuum: The Main Driver of Broad Absorption Line Variability, ApJS (IF=8.31), 229, 22

3. Weihao Bian, **Zhicheng He\*** & Richard Green et al., Spectral principal component analysis of mid-infrared spectra of a sample of PG QSOs, 2016, MNRAS (IF=5.23), 456, 4081

2. **Zhicheng He** & Weihao Bian et al., Variability of broad absorption lines of 188 QSOs from SDSS DR7, 2015, MNRAS (IF=5.23), 454, 3962

1. **Zhicheng He** & Weihao Bian et al., Variability of broad absorption lines in a QSO SDSS J022844.09+000217.0 on multi-year timescales, 2014, MNRAS (IF=5.23), 443, 2532

