# Zhiwei Shao

Phone: (+86) 189-5519-3426  $\diamond$  Email: zws@smail.nju.edu.cn

**OBJECTIVE** To obtain a PhD degree in Astrophysics utilizing my demonstrated strengths in pro-

gramming and problem-solving.

**EDUCATION** Bachelor of Science, School of Astronomy and Space Science

Nanjing University, Nanjing, Jiangsu Province, China, expected June 2020

Overall GPA: 4.43/5.0, Major GPA: 4.50/5.0

**SKILLS** Proficient with Python and Linux

Working knowledge of C++, MATLAB and Mathematica

#### EXPERIENCE Course Project - Plasma Code

Sep 2017 to Jan 2018

Advisor: Li Ji, Purple Mountain Observatory

- Read relevant articles and offer theoretical support to the use of AtomDB and PyAtomDB.
- Use AtomDB and PyAtomDB to do line diagnostics of SNR N132D and examine the reliability of the codes with R/G ratio of OVII triplets.

### Early Research Project - Kilonova Advisor: Zi-Gao Dai, Nanjing University

Sep 2017 to Present

- Process the multi-band data of GW170817 to alleviate the influence of distinction and make it comparable with our simulated results.
- Use MCMC method to determine the structure of the kilonova ejecta in GW170817 event (on going).

### Internship - Numerical Cosmology

Jan 2019

#### Advisor: Liang Gao, National Astronomical Observatories of China

- Illustrate satellites number density profiles in C-EAGLE results with different stellar mass limits and demonstrate their connections with the mass distribution of the cluster.
- Compare number density profiles in C-EAGLE results with observation data to examine its accordance with real universe.

## Internship - Numerical Cosmology

July 2019 - Aug 2019

- Advisor: Arif Babul, University of Victoria

   Build a Python package to systematically analyze the
  - Build a Python package to systematically analyze the X-ray properties of halos, including luminosity, spectroscopic temperatures, entropy, etc.
  - Apply the analyzing codes to a series of PhEW simulations with different physical settings to investigate the differences caused by settings.

# HONORS & AWARDS

Member of Elite project

Excellent student

Elite project scholarship

People's scholarship

Annual scholarship of NAOC, CAS

2016 - Present
2017
2017
2017
2017
2018