

# Chang Liu

UNDERGRADUATE IN ASTRONOMY

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“Explore the universe, benefit the society.”

## Education

### Peking University

Beijing, China

ASTRONOMY

Sept. 2017 -

- GPA 3.83/4 - Top 2 among ~30 students

### Peking University

Beijing, China

LIFE SCIENCES

Sept. 2016 - June. 2017

- GPA 3.87/4 - 1st among ~120 students

## Skills

**Programming** Python, shell, C++, Fortran, LaTeX

**Languages** Chinese, English

**Softwares** Photoshop, Lightroom, Illustrator

## Experience

### Department of Astronomy, Peking University

Beijing, China

UNDERGRADUATE RESEARCH & TRAINING PROGRAM - NATIONAL INNOVATION TRAINING PROGRAM

Jul. 2018 -

- Worked on the chemical impacts of an AGN, especially the impact on the synthesis of prebiotic organic molecules, to indicate the potential correlation between the activity of a supermassive black hole and both the origin and the evolution of life.
- Calculated the ionization rates of electromagnetic radiation caused by accretion the supermassive black hole in the Milky Way, in different galactic distance from the black hole.
- Modified and completed the codes for photo-ionization processes of various atoms and molecules based on the widely used package in astrochemistry - KROME.
- Calculated the chemical evolutions of crucial precursors for interstellar prebiotic molecules.

## Extracurricular Activity

### Summer Camp of Astronomy for Outstanding Senior Students (Peking University)

Beijing, China

VOLUNTEER

Jul. 2018

- Helped prepare for the welcome day, offered guidance and service to campers

### Investigation Group on Bike-sharing in Xiamen (School of Life Science)

Xiamen, China

CORE MEMBER

Jul. 2017

- Investigated the present condition and analysed the future development of several brands of shared bikes in Xiamen, one of the largest cities in South-east China
- In charge of organizing the draft of both our investigation proposal and the report,

### Department of Daily Life, Student Union (School of Life Science)

Beijing, China

MEMBER

Sept. 2016 - Jun. 2017

- Organized various activities to improve the life quality including organizing social mixers and designing games for the New Year Party
- Helped design a questionnaire and conducted a census on the current living and studying conditions of students in School of Life Sciences, reflected the problems to the dean and negotiated possible solutions
- In charge of *Calendar of Species* program of the WeChat public account of the Student Union, conducted popular science promotion about various planets in literary essays

## Honors & Awards

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2019	<b>Weiming Physics Outstanding Student</b> , School of Physics, Peking University	<i>Beijing China</i>
2018	<b>Merit Student</b> , Annual honor of 2017-2018, School of Physics, Peking University	<i>Beijing China</i>
2018	<b>Weilin Scholarship</b> , Annual scholarship of 2017-2018, School of Physics, Peking University	<i>Beijing, China</i>
2017	<b>Merit Student Pacesetter (the Highest Annual Accolade)</b> , Annual honor of 2016-2017, School of Life Sciences, Peking University	<i>Beijing, China</i>
2017	<b>Arawana Scholarship</b> , Annual scholarship of 2016-2017, School of Life Sciences, Peking University	<i>Beijing, China</i>
2017	<b>Third Prize</b> , The Alumni Cup for Summer Social Practice, School of Life Sciences, Peking University	<i>Beijing, China</i>
2017	<b>Excellent Student Union Member</b> , Annual honor of 2016-2017, Student Union of School of Life Sciences of Peking University	<i>Beijing, China</i>

## Presentation

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### The Project Presentation for the SURF Program, Caltech

*Pasadena, US*

A SYSTEMATIC SEARCH FOR PERIODIC WHITE DWARFS

*Aug. 2019*

- Introduced a cross-match study between *Gaia* and Zwicky Transient Facility (ZTF) in search of periodic white dwarfs