Yingqiu HE

Xihu District, Hangzhou, China, 310023

(+86) 19557127712 | heyqiu@zjut.edu.cn | August 7th, 2002 | github.com/heyingqiu/cv | Female

Personal Profile

I'm a senior undergraduate physics student at Zhejiang University of Technology, China, with a year-long exchange experience during my junior year at The University of Electro-Communications, Japan. My primary academic interests lie in theoretical physics, specifically in optics and elementary particles. Currently, I'm actively seeking Master's programs and research opportunities in these fields. (Related materials can be found on my GitHub.)

Education

Zhejiang University of Technolgy (ZJUT) *Hangzhou, China*

BSc in Optoelectronic Information Science & Engineering *Sept 2020 - Current*

- Expected to graduate with honors in July 2024
- Scholarship Recipient for Studies
- **GPA (percentage):** 3.6/5.0 (85.5%) (Top 15%)
- **Main Courses (score):** Analytical Mechanics (91), Quantum Mechanics (93), Electromagnetic Field Theory (81), Statistical Phyics (95), Mathematical Methods in Physics (85), Atomic Physics, Military Theory, Electronic Circuit Technology, Signals and Systems, Engineering Optics

The University of Electro-Communications (UEC) *Tokyo, Japan*

Internationcal Student of Short-Term Exchange JUSST Program *Oct 2022 - Sept 2023*

- JASSO Goverment Scholar
- **Main Courses**: Evolutionary Computation, Photonics and Opto-electronics, Optical Communication Engineering, Polymer Photonics, Academic Skills (Average Score: 93)

Research Experience

Baryon Acoustic Oscillations (BAO) in the Large-Scale Structure (LSS) Power Spectrum *ZJUT, Hangzhou, China*

BSc Thesis, Supervisor: Assoc. Prof. Xinjuan YANG (Inst. for Theoretical Physics & Cosmology) *Oct 2023 - Current*

- Learning the theories of General Relativity and Cosmology currently.
- **Research Objectives:** Utilize the measured LSS power spectrum and BAO properties to constrain cosmological parameters and explore the implications for our understanding of the universe's expansion history and composition.
- **Technical Skills:** Fortran (analyzing), PGPLOT (plotting).

3-D Imaging Using Optical Frequency Comb (OFC) Pulses *UEC, Tokyo, Japan*

Undergraduate Research Asistant, Supervisor: Prof. Kaoru MINOSHIMA (Dept. of Engineering Science) *Oct 2022 - Spet 2023*

- Studied fundamentals and applications of OFC and built a basic OFC light source based on optical fiber.
- Designed and made an InGaAs image sensor-driven circuit in a PCB board, analyzed the signal data in the experimental spectrometer, demonstrated the improvement of one aspect of the image resolution system.
- Presented two posters and delivered an oral presentations at internal conferences in two universities, completed a proceeding paper titled "Image Sensor-Driven Circuit Design for Measuring Optical Frequency Comb Spectrum".
- **Technical Skills:** MATLAB (plotting & analyzing), LaTeX (writing), Fusion 360 (PCB drawing), Power Point (presenting).
- **Soft Skills:** Presentation skills, teamwork, report writing, time management, self-learning.

Skills and Addition

Programming	Python (2-D FDTD simulation), MATLAB (Coursera certificate of Machine Learning), C (basic), Fortran (learning).
Miscellaneous	LaTeX (Overleaf/VScode), Origin, Fusion 360, Visio, Microsoft Office, Git, Illustrator.
Languages	Chinese (native), English (TOEIC 765, CET-6 536), Japanese (JLPT-N2 136)
Interests	Astronomy, foreign language, long-distance running, badminton, Aikido, Photograph.
Prospects	To study and conduct research in the field of physics in different countries.