

Sihong Xu

Clear Water Bay, Hong Kong SAR, China

sxubi@connect.ust.hk / xu_sihong@berkeley.edu

(+852) 9512 5794

EDUCATION

The Hong Kong University of Science and Technology	2021.09 – Present
B.S. Physics & Mathematics (with an Extended Major in AI)	Hong Kong SAR, China
University of California, Berkeley	2023.08 – 2023.12
UCEAP Reciprocity Student	CA, USA
Shenzhen Middle School	2018.09 – 2021.06
High School Student	Guangdong, China

RESEARCH EXPERIENCE

Investigation of CP Violation in Neutrino Interaction	2023.02 – Present
Department of Physics, HKUST	Hong Kong SAR, China

Supervisor: Prof. Kam-Biu Luk

Abstract: Using GENIE to simulate neutrino interactions, including extracting information through ROOT and programming, and data analysis. The understanding of neutrino interactions is the key to the precise measurement of neutrinos or anti-neutrinos at the detectors.

Quantum State Calculations of 2D Supermolecular Structure	2022.09 – 2022.12
Department of Physics, HKUST	Hong Kong SAR, China

Supervisor: Prof. LIN Nian

Abstract: Using MATLAB to simulate quantum states of lieb lattice. Tight-binding model and hopping parameters are used to qualitatively explain how the parameters of lieb lattice affect the band structure.

MAJOR REQUIRED COURSES

Physics

Honors General Physics I (A), General Physics Lab I (B+)
General Physics II (A), General Physics Lab II (A)
Modern Physics (A), Modern Physics Lab (A-)
Classical Mechanics (A), Honors Quantum Mechanics I (A)

Mathematics

Honors Calculus (A-), Honors Calculus (A)
Linear Algebra (A+), Multivariable Calculus (A)
Mathematical Analysis (A), Differential Equations (A+)

Computer Science

Programming with C++ (A+)

Current CGA. : 3.807/4.300

Current Major CGA : 4.038/4.300

AWARDS

Dean's List

22 Spring, 22 Fall, 23 Spring

EXTRACURRICULAR ACTIVITIES

HKUST School of Science Peer Mentor

2022.04 – 2023.04

SKILLS

Programming: C++ (Beginner), Python (Beginner), ROOT (Beginner), MATLAB (Beginner), LaTeX (Proficient)

Language: Mandarin (Native), English (Proficient)

Others: Graphic Design [Adobe Illustrator, Photoshop], Video Production [Adobe Premier Pro], Microsoft Apps