

Hongxiang Chen

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Southern University of Science and Technology (SUSTech)

EDUCATION

SUSTECH

BSc IN PHYSICS

2016 - 2017 | Shenzhen, China

GPA: 3.76/4.0

GUANGZHOU TIEYI MIDDLE SCHOOL HIGH SCHOOL

2011 - 2013 | Guangzhou, China

LINKS

GitHub: [we-taper](https://github.com/we-taper)

<https://github.com/we-taper>

Notes: **Study Notes**

<https://github.com/we-taper/Draft>

SKILLS

COMPUTER

Conversant:

Java, Matlab, \LaTeX , Vim

Intermediate:

Python, Linux System Administration

Basic:

Ruby, Bash

PHYSICS BEYOND USUAL CURRICULUM

Conversant:

Topological Insulators and Superconductors,

Abstract Algebra

Experienced:

Solid State Theory,

(Real) Differential Geometry,

Complex Geometry, Algebraic Topology

Acquainted:

Quantum Many-body Theory,

Discrete Mathematics, Sheaf Cohomology

LANGUAGE

Chinese : Native
Cantonese : Conversational
English : Fluent
German : Basic

RESEARCH INTEREST

Condensed Matter Theory • Topological State of Matter • Biophysics • Statistical Physics

RESEARCH EXPERIENCE

BACHELOR THESIS | TOPIC: CLASSIFICATION OF TOPOLOGICAL INSULATORS

In progress | Advisor: Prof. Jiansheng Wu

- To explore different ways of classifying topological insulators
- Possible Directions:
 - Apply techniques developed in non-interacting pictures to study the topological phenomena in classical mechanics
 - Study classification in other symmetry groups, such as the wallpaper groups

UNDERGRADUATE RESEARCH | TOPIC: MECHANICAL ANALOGY OF TOPOLOGICAL INSULATOR

2015 - 2016 | Advisor: Prof. Jiansheng Wu

- Calculated the eigenmodes of oscillation on a honeycomb lattices with/without the presence of Coriolis force
- Examined its symmetry using the analogy of quantum symmetries
- Tried to simulate the lattice using 3D-printed objects

PROGRAMMING EXPERIENCE

COURSE PROJECT | GUI INTERFACE FOR SAKAI ON PC

2014 | in collaboration with Linqi Zhang (GitHub:zlqzcc), and Wenxuan Zhang

- GitHub link: https://github.com/we-taper/CourseProject_2.
- May interact with Sakai through its REST interface to check courses, its announcements, homework, and download course related resources.
- Has a notification system (Reminder).
- Runs on Java and tested on Windows, though theoretically is cross-platform.

AWARDS AND OTHER ACTIVITIES

Year	Title	Location
2014-2017	College Start-up Scholarship, CNY 24,000	SUSTech
2015-2016	Excellent Student Scholarship, 3 rd class, CNY 1,500	SUSTech
2013-2014	Excellent Student Award	SUSTech
2013	Second Place in Debating Competition	Student Debating Union, SUSTech
2013	Caring for primary school children	Volunteer Association, SUSTech
2011	Asia-Pacific Robotics Championship China Qualifier - High School	Yong-Le Elementary School, Taipei