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
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	:	*Duolingo* L4
French	:	*Duolingo* L10

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