Roger(Xiuzhe) Luo

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Education

University of Science and Technology of China

Hefei

2013-2017

Bachelor in Physics/Computer Science (double degree)

Experience

Research

Research Assistant Prof. Hong Qin

Plasma Physics

2014-2015

Simulations and Experimental design.

Projects:

Simulated run-away electrons in Tokmak;

• Designed a plasma torch with cooperator

Research Assistant

Prof. Chuanfeng Li and Yongjian Han

Quantum Physics

2015-2017

Simulations and Experimental design.

• Found observable quantity for non-classical path:

Simulated cooling-assist adiabatic quantum computation, part of Code became the simulator AdiaRoll.jl

Course Projects.

Electricity and Magnetism

Prof. Bangjiao Ye

Simulation for Lightening by Monte Carlo method

2014

Equations of Mathematical Physics

Prof. Benjin Xuan

Discussion on the relation between SDE and PDE

Experiment of College Physics

Unsupervised 2015

Optical true random number generator

Open-Source Activities.

Volunteer

Chinese Julia Language Community

Active member

2015-present

Contributions:

- Organizer in preparation and establishment;
- Host for the first meet-up in east-campus, USTC
- Host for JuliaQuantum member's talk in USTC
- Wrote website and translated documents for Chinese Julia Community
- Preparation for 2016 user meet-up in Shenzhen sponsored by Haplox

Volunteer **JuliaQuantum** 2015-present

Main developer of QuCmp.jl

Contributions:

- Basic quantum circuit simulations
- Adiabatic Quantum Computing Simulations
- o re-implementation for CHP.c in Julia

Club Activities.....

President *Initiator and First President*

USTC UAV club 2015–2017

Member

USTC Linux User Group 2014–2017

Computer skills

Know well: C/C++, Julia, Python

Can use: CUDA C/C++, Mathematica, LaTeX, html, javascript, Java

Development Env: Linux

Research Interests

Quantum or Quantum-inspired Machine Learning

Quantum Information Theory

o Simulation in Quantum Computation Implementation

Awards

- CUPT(China Undergraduate Physics Tournament), 1st prize in USTC, 2015
 gave up quota of nationwide finals due to schedule, my work participated the final tournament and won the grand prize, top 5 in China
- CUPT(China Undergraduate Physics Tournament), 3rd prize in USTC, 2014
- o 3rd prize of freshman scholarship in USTC, 2013
- o First Prize in Chinese Mathematical Olympiad (in province), 2012

Miscellaneous

Sketch: 3 years trained in indoor still life

Accordion: certificate in 4th level as amateur in 2010 **Chinese Kung-fu**: 4 years trained in Bagua Zhang