# Roger(Xiuzhe) Luo

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## Education

University of Science and Technology of China

Hefei

Bachelor

2013-2017

Bachelor in Physics/Computer Science (double degree)

## **Experience**

Research.....

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Research Assistant Plasma Physics

**Prof. Hong Qin** 2014–2015

Simulations and Experimental design.

Projects:

- Simulated run-away electrons in Tokmak;
- O Plasma torch driven by micro-wave

#### Research Assistant

Prof. Chuanfeng Li and Yongjian Han

Quantum Physics

2015-2017

Simulations and Experimental design.

Projects

- Observable quantity for non-classical path (arxiv:1610.00102);
- Cooling-assist adiabatic quantum computation (poster on QIP2017)

# 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

2013

**Experiment of College Physics** 

Unsupervised

Optical true random number generator

2015

## 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**Main developer of QuCmp.jl
2015—present

#### 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 2015–2016

Member

USTC Linux User Group 2014–2016

# **Computer skills**

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

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

**Development Env:** Linux

## **Research Interests**

Quantum Computing/Quantum Information Theory

Tensor Network

o Boltzmann Machine and Ising Model

## **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