Gaoxiang Tang

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Education

Renmin University of China	2020.09 – Present
B.S. in Physics	*Haidian, Beijing, China*
GPA: 3.82/4.0 (2/27)	

Research Experience

Research Training for Undergraduates — 2022.10 – 2022.11
TIQS Lab at Renmin University of China — *Haidian, Beijing, China*
- Involved in the implementation of micromotion minimization methods in a single-ion trap at TIQS in Renmin University of China
- Theoretical results of relevant papers are reproduced numerically: the micro motion of a trapped ion is maximized when the RF electrode is applied with a modulation frequency equal to the trap frequency.
- Design a process of regulating the voltage to minimize the time required to compensate for stray fields.

Research Training for Undergraduates — 2022.05 – 2022.06
TIQS Lab at Renmin University of China — *Haidian, Beijing, China*
- Involved in the theoretical design and instrumentation of an experiment to implement quantum state discrimination in the single ion system using non-Hermitian PT-Hamiltonian quantities.
- Wrote part of the Mathematica code used to control the experiment equipment.

Internships

Research Intern — 2023.01 – Present
Beijing Academy of Quantum Information Sciences — *Haidian, Beijing, China*
- Write a Python program utilizing the STL model of a surface electrode ion trap and use Boundary Element Method to calculate the potential field distribution inside the trap when voltages are applied to the eletrodes.
- Use the above results to optimize the setting of voltages during ion shuttling.
- Code is open source at https://github.com/GaoxiangTang/junction-trap-simulation.

Awards & Honors

Third Class Undergraduate Study Excellence Scholarship
Renmin University of China — *2022.11*

Second Class Undergraduate Study Excellence Scholarship
Renmin University of China — *2021.12*

Special Scholarship for Excellence and Innovation
School of Science, Renmin University of China — *2021.12*

Specialized Skills

Programming Languages: Python (intermediate), C++(intermediate)
Research Tools: LaTeX(intermediate)
Language: CET6

Other Interests

Badminton: Member of the school of science badminton team
Jogging: Has a habbit of jogging 5km per day since junior high school
Real-Time-Strategy Games: Fan of *StarCraft* and *Red Alert*