

Xiangjun Tan

✉ xiangjun.tan@student.unsw.edu.au | 🏠 <https://www.researchgate.net/profile/Xiangjun-Tan>

Education

University of New South Wales (UNSW) Bachelor of Quantum Engineering Science/Physics 4-year	<i>Sydney</i> Sep. 2021 - Feb. 2024
Peking University (PKU) Summer School, Introduction to Quantum Information Technology	<i>Beijing</i> Jun. 2022 - Aug. 2022
University of New South Wales (UNSW) Bachelor of Physics(Honours)	<i>Sydney</i> Jan. 2024 - Current

Research Projects

Research on Neutrino Oscillation Physics Research Project, supervisor: Dr. Michael Schmidt <ul style="list-style-type: none">Studied the Time Evolution of the Effective Hamiltonian in Vacuum and in Matter.Derived the Expression for Evolution in Dark Matter.Developed an Interactive Model for Neutrino Oscillation using Python.	<i>UNSW, Sydney</i> Aug. 2022 - Jan. 2023
Modeling and Simulation of Silicon Qubit Devices SQA Undergraduate Research, supervisor: Dr. Chris Escott <ul style="list-style-type: none">Studied the Basics of Silicon Qubits.Developed a Customized Ising-Model for Simulation using Matlab.	<i>UNSW, Sydney</i> Jan. 2023 - Mar. 2023
Research on Quantum Computation for Neutrino Oscillation and Many-body Problems Talented Student Program, supervisor: Prof. Susan Coppersmith <ul style="list-style-type: none">Studying the Fundamentals of Many-body Physics and Quantum Field Theory (QFT).Developing Efficient Collective Neutrino Oscillation Algorithm on the IBMQ Platform.Using Error Mitigation Strategies to Reduce Errors and Optimize Gate Costs.Presenting the work on QPQIS-2023 Conference in Beijing	<i>UNSW, Sydney</i> Mar. 2023 - Present
Quantum Hall Effect in 2D Systems Taste of Research, supervisor: Prof. Alex Hamilton <ul style="list-style-type: none">Measuring the Quantum Hall Effect at Temperatures Below 2 Kelvin and Magnetic Fields Up to 9 Tesla.	<i>UNSW, Sydney</i> Sep. 2023 - Dec. 2023
Quantum Simulation and Defects in Grain Growth Research Assistant, supervisor: A/Prof. Tiantian Zhang <ul style="list-style-type: none">TBA	<i>Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing</i> Dec. 2023 -

Awards and Honors

Dec. 2022-2023	Scholarship: “SQA undergraduate Student Research Scholarship ”	<i>Sydney</i> <i>Quantum Academy</i>
Feb. 2023	Award: Dean’s list in 2022	<i>UNSW En- gineering</i>

Activities

UNSW Research Seminar Association President / Founder <ul style="list-style-type: none">I am the founder and president of the Research Seminar Association (RSA), a university-certified society. We bring together researchers and students on a weekly basis to discuss a variety of topics. Additionally, our association collaborates with international companies, facilitating job sharing opportunities and addressing employment-related issues for researchers.	<i>UNSW Sydney</i> Apr. 2023 - Present
Quantum Computation Training Program(4-th) Student	<i>University of Science and Technology of China</i> June. 2023 - Present

Technical Skills

Programming	Matlab, C, Python
Professional Softwares	Matlab, Ltspice, Mathematica
Drawing & Typesetting	Photoshop, Office, L ^A T _E X
Languages	Chinese(Native), English