



# JINGYI GAO

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## EDUCATION

**2021.10 – 2026.09 University of Tokyo Physics, Graduate School of Science**

Under the supervisor of Prof. Naomichi Hatano, I researched on **quantum thermodynamics and non-equilibrium statistical processes**, attended and presented in plenty of physical international conferences, published several research papers and received various awards.

**2021.10 – 2026.09 Shandong University Electronic Engineering, School of Information Engineering**

I am accepted by the engineering special program, Chongxin Academy of Shandong University, which is a training base for innovative and entrepreneurial talent in the emerging engineering disciplines, and started the studies of **quantum information** under the supervision of Prof. Xueyuan Hu.

## ACHIEVEMENTS

### ● Publications

1. Jingyi Gao and Naomichi Hatano, “*Non-equilibrium Dynamics of Three-Level Absorption Refrigerator at Third-Order Liouvillian Exceptional Points*” <https://arxiv.org/abs/2507.18261>
2. Jingyi Gao and Naomichi Hatano, “*Maximum Power of Coupled-Qubit Otto Engines*” PhysRevResearch.6.023172

### ● Awards and Scholarships

1. **[Best Poster Award]** ISSP-IIS Joint Symposium on Physics of Open System: Resonance, Symmetry and Topology (POS-RST 2025). August 8, 2025
2. **[Poster Award]** IIS PhD Student Live 2025. July 3, 2025
3. **[Fellowship]** Accepted by The World-leading Innovative Graduate Study Program for Quantum and Semiconductor Science & Technology Program (WINGS-QSTEP). October 2023~September 2026
4. **[Scholarship]** Accepted by Assuran International Scholarship. October 2022~September 2023
5. **[Award]** Good graduation thesis in School of Information Engineering, Shandong University. June, 2021
6. **[Scholarship]** Shandong University Academic Scholarship (Third-Class). June 2, 2020

### ● Presentations

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| 1. [Poster] POS-RST 2025, Kashiwa. 2025/08/06            | 6. [Poster] WINGS-QSTEP Colloquium 2025, Tokyo. 2025/02/28 |
| 2. [Poster] StatPhys29, Florence. 2025/07/14             | 7. [Oral] JPS Spring Meeting 2024, online. 2024/03/23      |
| 3. [Poster] IIS Student Live 2025, Tokyo. 2025/07/03     | 8. [Poster] POS-BYD 2023, Sapporo, 2023/8/20               |
| 4. [Oral] JPS Spring Meeting 2025, online. 2025/03/18    |  |
| 5. [Poster] Quantum Foundation 2025, Kashiwa. 2025/03/10 |  |

## SELF-ASSESSMENT

I am passionate about theoretical quantum physics, with broad interests in combining different fields to explore new research directions and improve existing studies. Skilled in both numerical and analytical methods, I enjoy applying innovative mathematical tools to solve challenging problems. I thrive in collaborative discussions with researchers from diverse backgrounds, which often sparks new ideas.

At the same time, I value work-life balance and embrace a “work hard, play hard” approach, keeping myself motivated and energized. Outside of research, I enjoy dancing, singing, and exploring different cultures.