Yong Kwon

rainstar77@pukyong.ac.kr
Undergraduate student
PKNU, Busan, Republic of Korea

Research interests

Quantum information, quantum computing, quantum computers, open quantum system

Education

2016 – Present	**Pukyong National University** – Busan B.S. in physics Mentors: Prof. Seung Ki Baek , Prof. Jaegon Um

Publications

2021	*TBA*

Research experience

2021 – Present	**Entanglement vs mutual information on two qubit system** Mentors: Prof. Jaegon Um (POSTECH), Prof. Seung Ki Baek (PKNU)

- Investigate on two spin-1/2 particles
- Find correlated information entropy on classical definition and quantum definition
- Compare two entropy values using 'Concurrence'

Fall 2020	**Quantum-like game development** Mentors: Prof. Jae-yeol Hwang (PKNU) (only for class guidance)

- The word 'Quantum-like game' means a game made by applying the phenomenon to introduce to those who are not familiar with quantum physics.
- This project worked during the one of undergraduate classes, 'Capstone Design I'
- My contributions: project idea suggestion, introducing concept of quantum-like games, GUI development
- Find more detailed information following Github team repository.

Talks and posters

2021. 10.   **[P]** Correlation between mutual information and concurrence
KPS Fall Meeting 2021

2021. 08.   **[P]** Entanglement vs. mutual information
Roles of heterogeneity in non-equilibrium collective dynamics (RHINO) 2021 link

Technical skills

Programming languages
Python, C (a little bit), TEX, Markdown

Software
LATEX, Git, Mathematica, Linux (usually Ubuntu)

Languages
Korean (mother language), English (intermediate level)

Activities

2017. 07.   **PKNU-ISS (International Summer School) Program**

- Officially certified program by PKNU
- Attended seasonal classes with abroad students who were enrolled to my university
- To this program, my english skill has improved and felt their cultural difference

Traveling abroad experiences

- Vietnam (2016) , Taiwan (2016) , Japan (2018) and Italy (2020)