

The Third Nuclear Physics Tortoise Lecture Series

QUANTUM COMPUTATION IN NUCLEAR PHYSICS >



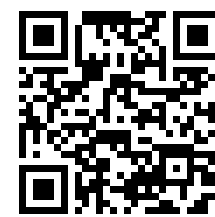
DATES

17–22 January 2027

VENUE

Soongsil University, Seoul,
Republic of Korea

REGISTRATION



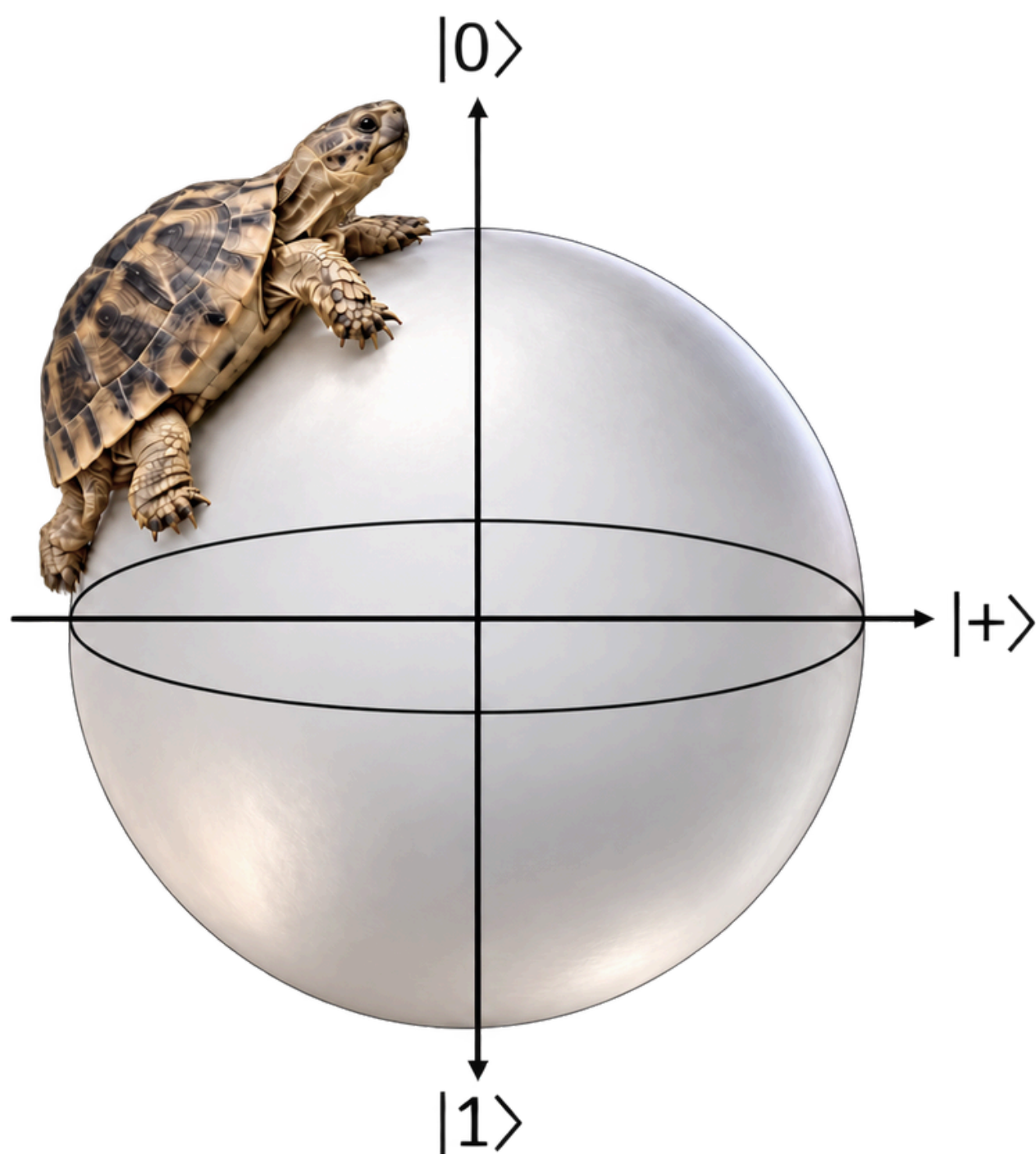
Registration open until 31 December 2026.
<https://ynuclear-indico.yonsei.ac.kr/event/30/>
Lunch provided for all registered participants.

ABOUT

Quantum computing is emerging as a promising approach to addressing challenging problems in nuclear physics. This lecture series will introduce the basic concepts of quantum computation and explain how quantum algorithms can be applied to nuclear-physics problems.

The lectures will cover quantum states, quantum gates, quantum circuits, variational quantum algorithms, and quantum simulation. Particular attention will be given to applications in nuclear structure, nuclear matter, and many-body physics. The program will also discuss current challenges, including noise, limited quantum resources, and the practical implementation of quantum algorithms on near-term quantum devices.

Through lectures, tutorials, and discussions, participants will develop a basic understanding of quantum computation and explore its potential for future research in nuclear physics. The program is intended for graduate students, postdoctoral researchers, and young researchers in nuclear physics and related fields.



ORGANIZERS

Myung-Ki Cheoun (Soongsil)
Youngman Kim (IBS)
Chang-Hwan Lee (Pusan Nat'l)

Yeunhwan Lim (Yonsei)
Seung-il Nam (Pukyong Nat'l)
Yongwoo Choi (Hoseo)

INVITED LECTURERS

Matthias Heinz (RIKEN)



부경대학교 방사선과학기술연구소
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