Seminar

DATE January 16th , 2024 (Tuesday)

TIME 14:00 ~ 15:00

VENUE R618, New Physics Bldg., NTU

SPEAKER

ZENG Bei

Professor, Department of Physics, School of Science, The Hong Kong University of Science and Technology

TITLE

Shaping the Quantum Mind: AI-Enhanced Education in Quantum computing

BIOGRAPHY

Professor ZENG Bei is a quantum information theorist at The Hong Kong University of Science and Technology, where she is a professor of physics and director of the IAS Center for Quantum Technologies. Her research interests include quantum computing, error correction and information. Professor ZENG is a 2002 Tsinghua University (THU) graduate who studied physics and mathematics. After earning a master's degree in physics at THU in 2004, she completed a PhD in physics at MIT in 2009. Professor ZENG became a postdoctoral fellow at the institute for Quantum Computing, University of Waterloo, before becoming an assistant professor at the Department of Mathematics and Statistics at the University of Guelph in 2010, rising through the academic ranks to become a full professor in 2018. She moved to her current position at The Hong Kong University of Science and Technology in 2019. In 2021, Professor ZENG was named a fellow of the American Physical Society (APS) after a nomination from the APS Division of Quantum Information (DQI).

ABSTRACT

In this presentation, I will discuss our efforts in quantum computing (QC) education and its intersection with AI and generative AI. I will highlight initiatives like developing portable QC systems and specialised AI tools, such as AI for quantum chess, and explore their impact on enhancing teaching and learning experiences. We will focus on how generative AI creates personalised and interactive educational content, preparing students for future technological challenges. Additionally, I will touch upon the future integration of generative AI with robotics in QC education, emphasising its role in creating adaptive, immersive learning environments.

Organizer: Department of Physics, National Taiwan University

Sponsor: Center for Quantum Science and Engineering 量子科學與工程研究中心

NCTS National Center for Theoretical Sciences Physics Division 國家理論科學研究中心 物理組