Joint CQSE & NCTS Seminar

2024
Nov. 8, Friday

Time: Nov. 8, 14:20 ~ 16:20

Title: Applications of quantum computing in optimization and finances

Speaker: 郭姝妤博士後研究員 (Department of Electrical Engineering, National Taiwan University)

Place: Rm. 104, Chin-Pao Yang Lecture Hall, Department of Physics/CCMS, NTU

Online Link:
https://nationaltaiwanuniversity-zbh.my.webex.com/nationaltaiwanuniversity-zbh.my/j.php?MTID=m7601bdfa496ccaf8aac2838aab8c25f2

Abstract:

Quantum computation and communication have garnered significant interest due to their potent abilities to accelerate complex problems and provide unconditional security, making remarkable progress in recent years. Hybrid quantum computing combines classical and quantum resources to tackle challenging optimization problems, leveraging the strengths of both within the current constraints of quantum computers. In this talk, I will focus on my recent works on quantum computation, communication, and quantum-inspired algorithms for finance, and optimization; then we will discuss some interesting applications as well. Experiments and analyses show many promising results, and our proposed protocols are more effective and efficient than other state-of-the-art methods.

Biography:

Shu-Yu Kuo received her Ph.D. degree from the Department of Computer Science and Information Engineering, National Chi Nan University, Nantou, Taiwan, in 2018. She was a Visiting Postdoctoral Research Associate with the Department of Electrical Engineering at Princeton University, Princeton, NJ, and the University of Washington, Seattle, WA, USA, in 2018 and 2019. She is currently a Postdoctoral Fellow with the Department of Electrical Engineering, National Taiwan University, Taipei, Taiwan. Her research interests include quantum secure communication and computation, quantum-inspired optimization, network security, and financial technology.