

Joint CQSE & NCTS Special Seminar

2022
Sep. 23, Friday

TIME Sep. 23, 2022, 2:30~3:30pm
TITLE Building a Quantum Compilation System: A Recent Progress
SPEAKER Prof. Jie-Hong Jiang (Department of Electrical Engineering,
National Taiwan University)
PLACE Rm104, Chin-Pao Yang Lecture Hall,
CCMS & New Physics Building, NTU
ONLINE <https://nationaltaiwanuniversity-zbn.my.webex.com/>



Abstract:

Compiler systems are critical for applications to exploit the potential computational strength provided by the hardware, but the compiler requires ample knowledge about the software and the computer architecture so as to analyze and evaluate the hardware-software interactions. Under the MOST Quantum Technology Program, we address the problem of quantum software/program compilation for quantum algorithms to be executed on quantum hardware processors. The compilation tasks considered in this project include quantum program synthesis, optimization, simulation, verification, and testing. In this talk, we will update our recent progress in building the quantum compilation system.

Biography Brief:

Professor Jie-Hong R. Jiang received his B.S. and M.S. degrees in Electronics Engineering from National Chiao Tung University, Hsinchu, Taiwan, in 1996 and 1998, respectively. In 2004 he received a Ph.D. degree in Electrical Engineering and Computer Sciences from the University of California, Berkeley. He is a Professor in the Department of Electrical Engineering and the Graduate Institute of Electronics Engineering at National Taiwan University (NTU). His research interests include logic synthesis, formal verification, electronic design automation, and computation models of biological and physical systems.

