

北京大学固态量子器件系列讲座

Circuit QED for Superconducting Quantum Simulation and Adiabatic Quantum Computing 田琳 (Lin Tian) 教授 School of Natural Sciences, University of California, Merced, USA 时间: 2018年6月22日(周五) 10:00 地点: 北京大学理科二号楼2736会议室

Abstract: The state-of-the-art of superconducting quantum devices enables the development of medium-sized quantum computers that have the potential to demonstrate quantum advantages over their classical counterparts. In this talk, we first discuss our recent works on superconducting analog quantum simulators, where circuit QED is an essential building block. Then, we will present a universal and implementable approach to quantum adiabaticity via a circuit QED setup. This approach does not require the spectral knowledge of the adiabatic quantum computer or the construction of unphysical interactions.

About the speaker: Prof. Lin Tian received her Ph.D. in Physics in 2002 from the Massachusetts Institute of Technology. After holding research positions at Universität Innsbruck, NIST at Gaithersburg, and Stanford University, she joined the School of Natural Sciences at the University of California, Merced, in 2008. Her current research interests include theoretical questions in solid-state quantum computing, quantum simulation, hybrid quantum systems, optomechanics, decoherence and noise models.

联系人: 徐洪起 北京大学固态量子器件北京市重点实验室 http://qtech.pku.edu.cn