Zurich Instruments

An Arbitrary Waveform Generator for Quantum

Dr. Bruno Küng Application Scientist

Time: 10:00am, Aug 2, 2016 (Tuesday)

时间: 2016年8月2日 （周二）上午10:00-10:40

Venue: w563, Physics building, Peking University

地点：北京大学物理楼，西563会议室

Abstract

A growing number of experiments today rely on arbitrary signal generation combined with high-speed data acquisition. As a prime example, superconducting qubit experiments require precisely shaped microwave pulses and fast lock-in detection. In this talk, we will first give a general introduction into the techniques used and the challenges ahead in this field. Then we will discuss a practical example of superconducting qubit control and measurement. The seminar will also contain a live demonstration of the Zurich Instruments UHF-AWG.

About the Speaker

Dr. Küng obtained his PhD in Physics on single-electron counting in semiconductor quantum dots in the group of Klaus Ensslin at ETH Zurich. He continued on the subject of superconducting qubits in the group of Olivier Buisson at CNRS Grenoble. His research work gave him a thorough understanding of the needs of researchers in quantum computing and quantum transport. He joined Zurich Instruments in 2015 as an expert on quantum computing.