



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
SEMINAR

On Demand Nanoscale Electronics, Photonics and Beyond—Future Research Plan

by

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Date: February 15, 2011 (Tuesday)

Time: 10:30 a.m. - 12:00 noon

Place: Rm 128 Science Centre North Block, CUHK

ALL INTERESTED ARE WELCOME

Abstract

Oxide Interfaces and atomic force microscope writing technique provide great platform for next generation on demand nanoscale electronic and photonic devices. These device concepts aim toward novel computational architectures that extend “beyond Moore’s Law”, and provide unique opportunities to study a wide range of novel phenomena in low-dimensional systems. In this talk I will focus on three directions toward which I plan to engage my future research. These directions include: development of on-chip generation of light from nanoscale junctions, nanoscale thermometry and refrigeration of quantum devices, and all-electrical control of spintronic devices.

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