TIME SCHEDULE

09:00  THE SECOND QUANTUM REVOLUTION  >>> PETER ZOLLER (Univ. Innsbruck)

09:45  QUANTUM SIMULATION, COMMUNICATION, AND SENSING  >>> MISHA LUKIN (Harvard)

10:30  MORNING BREAK

10:45  QUANTUM COMPUTING AND QUANTUM COMMUNICATIONS  >>> JUNGSANG KIM (Duke)

11:30  SUPERCONDUCTING QUANTUM COMPUTER  >>> WILLIAM OLIVER (MIT/Lincoln)

13:30  SEMICONDUCTING SPIN QUBIT DEVICES  >>> DOHUN KIM (SNU)

14:15  PRECISION ATOM MANIPULATION ON SURFACES  ANDREA HEINRICH (Ewha Univ/IBS)

15:00  COFFEE BREAK

15:15  QUANTUM MATTER FOR QUANTUM DEVICES  >>> PHILIP KIM (Harvard)

16:00  QUANTUM LEAP: ARE WE AT THE TIPPING POINT?

PANEL DISCUSSION

NEW ERA OF QUANTUM SCIENCE AND ENGINEERING

The technological advancement of our ability to synthesize new materials by designing and precisely controlled manipulation of atoms, molecules, and photons brings a new area of application of quantum physics. Advancement of our understanding of quantum physics may also lead to the second quantum revolution where the engineering of quantum matter with atomic precision can be achieved in the device applications. In this one-day symposium, we will discuss various aspects of the second quantum revolutions in quantum materials, quantum sensing, quantum communication and quantum computing.

SYMPOSIUM SPEAKERS FOR NEW ERA OF QUANTUM SCIENCE AND ENGINEERING

PETER ZOLLER — Univ. Innsbruck
MISHA LUKIN — Harvard
JUNGSANG KIM — Duke
WILLIAM OLIVER — MIT/Lincoln
DOHUN KIM — SNU
ANDREA HEINRICH — Ewha Univ/IBS
PHILIP KIM — Harvard