



2023

QNS Colloquium

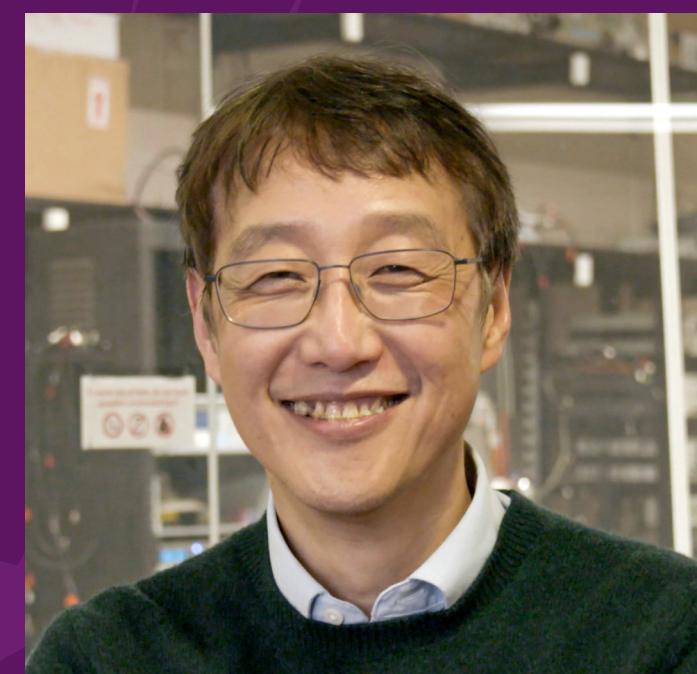
Engineered quantum materials using van der Waals atomic layer heterostructures

Over the last 50 years, two-dimensional (2D) electron systems have served as a key material platform for the investigation of fascinating quantum phenomena in engineered material systems. Recently, scientists have found that it is feasible to produce van der Waals (vdW) layered materials that are atomically thin. In these atomically thin materials, quantum physics enables electrons to move effectively only in a 2D space. Additionally, by stacking these 2D quantum materials, it is also possible to create atomically thin vdW heterostructures with an extensive range of interfacial electronic and optical properties. Novel 2D electronic systems realized in vdW atomic stacks have served as an engineered quantum material platform. In this presentation, we will discuss several research initiatives aimed at realizing emergent physical phenomena in stacked vdW interfaces between 2D materials.

May 17 (Wed, 15:00 - 16:00)

B1 Jupiter seminar room

**Research Cooperation Building (연구협력관),
Ewha Womans University**



Philip Kim
Harvard University



CENTER FOR **QUANTUM** NANOSCIENCE