ABSTRACT
Modern electronics rely heavily on technology that confines electrons in the interface layers of semiconductors. In recent years, scientists have discovered that they can isolate various atomically thin van der Waals (vdW) layered materials. In these atomically thin materials, quantum physics allows electrons to move only in an effective 2-dimensional (2D) space. By stacking these 2D quantum materials, one can also create atomically thin vdW heterostructures with a wide variety of electronic and optical properties. In this talk, I will discuss several key scientific discoveries made in vdW heterostructures, along with some personal reflections and prospects.

BIO
Prof. Philip Kim will receive the Benjamin Franklin Medal in Physics. This award recognizes his “pioneering discoveries in the new science of materials composed of single-atom-thick layers, opening the door to a vast array of the new technologies”.

Philip Kim is Professor of Physics and Professor Applied Physics at Harvard University. Professor Kim is a world leading scientist in the area of materials research. His research area is experimental condensed matter physics with an emphasis on physical properties and applications of nanoscale low-dimensional materials. The focus of Prof. Kim’s group research is the mesoscopic investigation of transport phenomena, particularly, electric, thermal and thermoelectrical properties of low dimensional nanoscale materials.

Registration for this event is free, but required, so we can prepare for the event accordingly.

https://www.lrsm.upenn.edu/event/franklin-institute-award-philip-kim/
Seating is limited within the venue (150 person), but overflow space will be available. Come early to ensure a seat in the room.