

# *Chez Pierre*

Presents ...

**Monday, April 23, 2018**

**12:00pm Noon**

**MIT Room 4-331**

## **Chez Pierre Seminar**

**Charles Ahn – Yale University**

**“The materials physics of complex oxides”**

Complex oxide materials exhibit a tremendous diversity of behavior encompassing a range of functional properties, such as magnetism, ferroelectricity, multiferroicity, and superconductivity. An even richer spectrum of possibilities becomes available if one starts to combine different complex oxides together with atomic-scale precision to create new artificially structured, heterogeneous systems. In these nanostructured materials, the atomic-scale interface of these systems can play a decisive role in determining the observed behavior, with new physical properties emerging. In this talk, we describe the electrostatic control of strongly correlated behavior, such as magnetism, the Mott metal-insulator transition, and orbital polarization, and we discuss the interplay between new interfacial structural motifs and functional behavior.

