

DEPARTMENT OF PHYSICS

Spring 2018 seminar series

IMAGING ATOMS: EXAMINING HOW MOLECULES AND ATOMS SELF-ASSEMBLE ON SURFACES

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Wednesday, February 7th, 2018
2:00 pm
Ayer Hall 112

Our electronic devices continue to shrink so that we can have smaller phones with more processing power and more memory. Creation of these devices requires that we understand both how to create specific structures of atoms and that we can characterize the nanoscale physics of how properties, such as electrical conductivity or magnetic moment stability, change as these devices are shrunk. My research uses scanning tunneling microscopy to examine the atomic structure of surfaces such as graphite (Fig. 1). I am interested in examining how atoms and molecules self-assembly on these surfaces, and characterize the electronic and magnetic properties of the created nano-islands or wires (Fig. 2).

Figure 1: Atomic resolution image of Highly ordered Pyrolytic Graphite

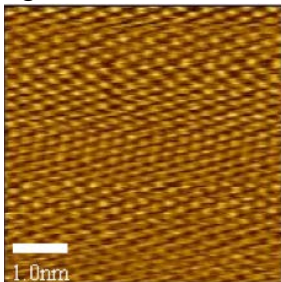


Figure 2: Magnetic Cobalt islands on an Iridium(111) surface

