

The Illinois MRSEC: Mechanics and Dynamics of Nanodevices

Nadya Mason, U. of Illinois at Urbana-Champaign

Abstract

The Illinois Materials Research Science and Engineering Center (I-MRSEC) was recently funded to perform fundamental, innovative research and to support training in materials design, understanding, and application. Two interdisciplinary research groups are supported: the first, on Metallic Antiferromagnetic Materials, aims to advance understanding and control of metallic antiferromagnets using ultrafast optics and currents, as well as fast temperature excursions. The second, on Active Interfaces Between Highly-Deformable Nanomaterials, aims to transform understanding of the link between deformations of 2D heterostructures and molecular assemblies, and the resultant changes in electronic, chemical, and optical properties. In this talk I will focus on the nano-devices, techniques, and facilities used in the research.