



Physics & Engineering Seminar

“Magnetic Measurements of Electrodeposited Thin Films and Multilayers”

**Professor Jennifer Hampton
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Hope College**

on

Friday, October 19, 2007

3:00 p.m. – 4:00 p.m.

in

VWF 104

Abstract: The 2007 Nobel Prize in Physics was recently awarded to two European physicists who discovered in 1988 that the electrical resistance of multilayered materials with alternating magnetic and nonmagnetic layers is incredibly sensitive to the application of an external magnetic field. They named the effect Giant Magnetoresistance (GMR), and today it is the technology being used in almost every computer hard drive. In this seminar, I will describe GMR and how it has been influential in the ever-increasing amount of data you can store on your computer. Then I will show how electrodeposition can be used to fabricate GMR-type materials and present data on their magnetic behavior.