Abstract Submitted
for the 4CF13 Meeting of
The American Physical Society

Domain Morphology of Co/Pt Ferromagnetic Thin Films KELSEY HATCH, None — I work with Co/Pt ferromagnetic thin films. The films are made of 50 bi-layers of Co and Pt. This layering causes the magnetic domains within the Co layers to align perpendicular to the film. My goal is to better understand the magnetic domain morphologies of Co/Pt thin films in the presence of a magnetic field. I apply magnetic fields of various strengths to a sample with a Vibrating Sample Magnetometer (VSM). The sample's domain depends on its magnetic history, which creates a hysteresis loop when plotting the magnetic domain vs the field applied. After each application I use Magnetic Force Microscopy (MFM) to map the domains of the sample at remnance. The hysteresis causes domains to develop differently for different field strengths, resulting in domains that appear either maze-like or bubbly. By analyzing the MFM images I am able to correlate field strength to the domain morphology.

Kelsey Hatch
None

Date submitted: 18 Sep 2013 Electronic form version 1.4