

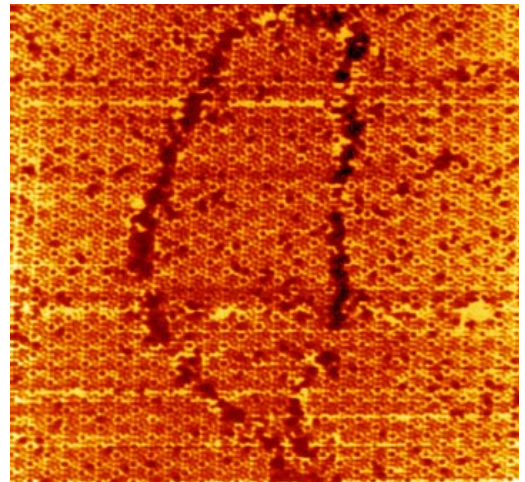
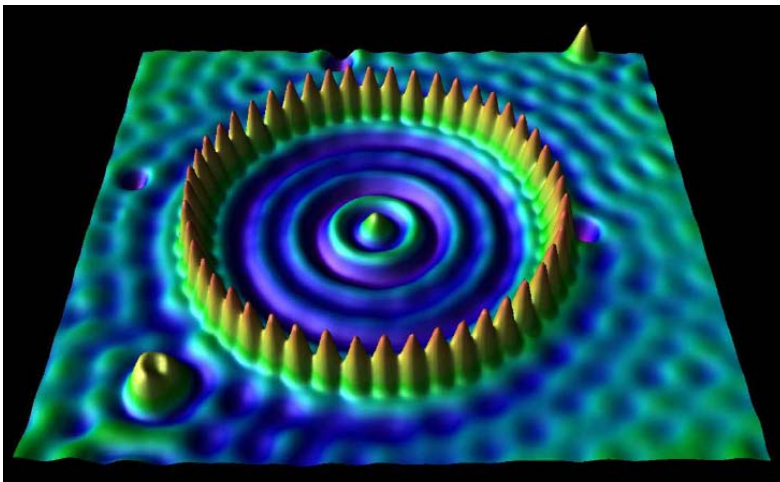
Physics Seminar

Monday 9/21/2009, 4:30 pm
Science & Engineering Building Auditorium

John Lee

Physics Department - Mercer University

Nano-Positioning Sensor Invented at Mercer



With the advancement in nanotechnology, the ability to position/measure at sub-nanometer scale has been one of the most critical issues for the nanofabrication industry and researchers using scanning probe microscopy (SPM). Commercial translation stages have achieved direct measurements at the scale of 0.01 nm with capacitive sensing metrology. However, to the authors' knowledge, there is no commercial sensor that can be used for long travel range (> 1 cm) while maintaining such fine resolution. In this paper, we present a novel capacitive position sensing metrology with ultra-wide dynamic range from sub-nanometer to literally any desired length for a translation stage. This invention at Mercer University opens many possibilities in nanometer scale fabrications and research.

Please join us for light refreshments at 4:15pm outside SEB 203.