



# Differential Equations and Applied Math Seminar

Dr. Bahaudin Hashmi, Texas State University

11am-12pm November 3rd, 2017

333 Derrick Hall

**Title:** Nanoscale Patterns in Ion Bombardment of Binary Planar Surfaces

**Abstract:** When a binary planar surface is bombarded with a broad ion beam, one of the two atomic species is preferentially sputtered. As a result, the dynamics of surface morphology and composition are coupled. We extend the Bradley-Shipman equations of motion and conduct a linear and weakly nonlinear analysis to demonstrate that highly ordered nanopylramids form when a binary crystalline material is bombarded at normal incidence.

Interested faculty and graduate students are encouraged to attend.