

# Department of Applied and Computational Mathematics and Statistics Colloquium

**Jonathan Hauenstein**


Department of Mathematics  
North Carolina State University

will give a lecture entitled:

*Polynomials, Nonlinear Algebraic Differential Equations, and Applications*

## Abstract

Systems of polynomial equations and nonlinear algebraic differential equations arise in many applications in a wide range of subject areas including biology, chemistry, economics, engineering, numerical analysis, and physics. The polynomial systems which arise either directly in the application or by discretizing differential equations are often large-scale, but highly structured. This talk will explore using numerical methods for solving polynomial systems, collectively called numerical algebraic geometry, to study several of these applications.



**Monday, February 4, 2013  
4:00 p.m. to 5:00 p.m.  
127 Hayes-Healy Center**

Colloquium Tea

3:30 p.m. to 4:00 p.m. 154 Hurley Hall