

Department of Applied and Computational Mathematics and Statistics Colloquium

Jonathan Hauenstein


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will give a lecture entitled:

The Geometry of Structural Identifiability and Inverse Problems

Abstract

Parameter estimation is a fundamental task for using a model to make predictions regarding future events from currently available data. When a model is overparameterized, parameter estimation techniques can actually model the noise in the data rather than just the underlying physical property under investigation. In order to limit this nonphysical behavior, one investigates the structural identifiability of the model. This analysis also provides insight into which combinations of the parameters should be measured in order to provide a predictive tool. This talk will explore a new technique arising from numerical algebraic geometry for investigating structural identifiability and reparameterizations which is applicable to large-scale models. This is joint work with Dan Bates and Nikki Meshkat.



Wednesday, February 19, 2014
4:30 p.m. to 5:30 p.m.
127 Hayes-Healy Center

Colloquium Tea

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