University of Nevada, Las Vegas

Department of Mathematical Sciences Colloquium
Joint with Center for Applied Mathematics and Statistics (CAMS) Seminar

Decoupling Techniques for Multi-Physics Applications

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Tuesday, December 9, 2014
1:00 pm – 2:00 pm
Location: SEB 2151

Abstract

This talk discusses decoupling issues in multi-physics and complex system computation. We present a general framework for decoupling coupled PDE models in multi-physics applications. Examples of decoupled numerical algorithms and theory are illustrated for two-grid/multi-grid methods, preconditioning methods, mixed implicit/explicit marching methods for coupled fluid/porous media flows, fluid-solid interaction, superconductivity, etc.

Graduate Students are encouraged to attend.