Department of Mathematics

University of Houston

Scientific Computing Seminar

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Numerical zoom for localized multi-scale problems

Thursday, Feb. 14, 2013
3:00 PM- 4:00 PM
Room 646   PGH

Abstract: We investigate the Schwarz' domain decomposition algorithm for numerical zooms. Error estimates are given for non-matching meshes for elliptic and parabolic partial differential equations. The method is applied to the security assessment of the burial of nuclear waste which is a typical multiscale problem for porous media flow. Extension to Navier-Stokes equations will be discussed. This is joint work with Alexei Lozinski and it is related to the work of Roland Glowinski, Jiwen He and Jacques Rappaz.

This seminar is easily accessible to persons with disabilities. For more information or for assistance, please contact the Mathematics Department at 743-3500.