Department of Mathematics

University of Houston

Scientific Computing Seminar

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Reduced order models for large scale wave problems

Thursday, Nov. 19, 2015
1:30 PM- 2:30 PM
Room 646 PGH

Abstract: Reduced order models approximate transfer functions of large-scale linear dynamical systems by small equivalent ones. Their matrices can be geometrically interpreted as finite-difference operators discretized on the so-called optimal grids, a. k. a. spectrally matched grids or finite-difference Gaussian quadrature rules. In this talk we discuss some recent applications of this powerful approach to numerical solution of hyperbolic problems in the time and frequency domains. They include optimal discretization of perfectly matched layers and multi-scale elastic wave propagation.

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