

Fall  
2015

*Mathematical Sciences*  
*Colloquium*

Robust High-Order Methods for Waves

ABSTRACT: Problems governed by wave propagation span much of the physical phenomena we experience. Thus the development of better tools for simulating waves has the potential for significant impact. Crucial components of an efficient time-domain solver are robust high-resolution volume discretizations applicable in complex geometry. Our focus is on high-order energy stable volume discretization methods applicable on hybrid grids. In particular we will discuss a new formulation of upwind discontinuous Galerkin methods for wave equations in second order form, Galerkin methods on structured grids, and methods built from Hermite interpolation.

Speaker: Tom Hagstrom  
(Southern Methodist University)

Friday, November 6, 2015

Time: 4:00 – 5:00 PM

Location: AE214



