

FINITE ELEMENT TECHNIQUES FOR WAVE SIMULATIONS

*Leszek Demkowicz¹ and Jay Gopalakrishnan*² and Robert Haber³ and Nilima Nigam⁴*

¹The University of Texas at Austin

²Portland State University

³University of Illinois Urbana-Champaign

⁴Simon Fraser University

MINISYMPOSIUM

This minisymposium is devoted to exchange of ideas for improving simulation tools for wave propagation based on finite elements. Numerical techniques of interest include spacetime methods, reduced order models, nonlinear materials, novel time stepping schemes, tent-based schemes, Trefftz methods, infinite-domain truncation, and fast solvers. All application areas involving waves are welcome, especially electromagnetics, photonics, metamaterials, plasmonics, high energy lasers, optical fiber amplifiers, gravitational waves, acoustics, seismic applications, elastodynamics, water waves, forward and inverse scattering, and multiphysics wave problems.