

Applied Mathematics Seminar

Geometry and Symmetry based Structure Preserving Numerical Methods for Elasticity and Fluid Dynamics

Monday's, 4 p.m., in DON 2159

Topics

- Introduction to Structure Preserving Numerical Methods for Ordinary Differential Equations
 - Student project on SPNM for ODE's for oscillating pendulum
 - Discrete Lagrangian, Variational Integrators
 - Introduction to Structure Preserving Numerical Methods for Partial Differential Equations
 - Student talk on SPNM for PDE's for stationary heat conduction
 - Complex numbers, Rotations, and Quaternions and their use for SPNM for PDE's
-

The series will cover topics from current research in the above areas.