

Department of Mathematics

University of Houston

## Scientific Computing Seminar

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University of Tennessee, Knoxville

### Finite element approximation of nonconvex uniformly elliptic fully nonlinear equations

Thursday, April 13, 2017

1:30 PM- 2:30 PM

Room 646 PGH

**Abstract:**

We propose and analyze a two-scale finite element method for the Isaacs equation. By showing the consistency of the approximation and that the method satisfies the discrete maximum principle we establish convergence to the viscosity solution. By properly choosing each of the scales, and using the recently derived discrete Alexandrov Bakelman Pucci estimate we can deduce rates of convergence.