

**CRUNCH Seminars at Brown, Division of Applied Mathematics**

**Friday – March 1, 2019**

**Numerical solution of some evolutionary partial differential equations**

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In this talk, I will discuss about my past research work on numerical scheme development for evolutionary partial differential equations which includes Hyperbolic conservation laws, sine-Gordon and Cahn-Hilliard equations. Relaxation system based stabilized finite element scheme and kinetic theory based WENO scheme are used to solve hyperbolic conservation laws whereas higher order spectral element scheme is used to obtained the solutions of sine-Gordon and Cahn-Hilliard equations.