



Fall 2018

Colloquium Series

October 12, 2018 at 3pm in Bell Hall 143

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Nonlinear Thermo-elastic Plate PDE Systems: From Parabolic-Hyperbolic To Hyperbolic-Hyperbolic

In this talk, we consider nonlinear thermo-elastic plate PDE systems defined on bounded domains in 2- or 3-d spaces. I will start with a parabolic-hyperbolic system where the heat conduction is described by the classic Fourier Law, and both well-posedness and long time behavior will be discussed. A further case will be studied where the heat conduction is described by the Cattaneo-Maxwell Law. Last but not least, some preliminary numerical simulation results will be presented.