Susanne C. Brenner, Li-yeng Sung, Hongchao Zhang and Yi Zhang\*
(yzhang24@math.lsu.edu). Finite Element Methods for the Displacement Obstacle Problem of Clamped Plates.

The displacement obstacle problem of clamped plates is an example of a fourth order variational inequality whose numerical analysis is more subtle than that of second order variational inequalities. In this talk we will introduce a general framework for finite element methods for this problem. Both error estimates and numerical results will be discussed. (Received September 22, 2011)