

1077-VL-392

Anita Marenò* (aum24@psu.edu), Olmsted Building, 777 West Harrisburg Pike, Middletown, PA 17057. *Apriori bounds and maximum principles for some higher order nonlinear pdes.*

In this talk we illustrate how the 'P-function' technique can be used to obtain maximum principle results for some nonlinear pdes of order greater than or equal to four. We include results for some interesting nonlinear equations from thin plate theory. We also deduce apriori bounds on certain quantities of interest. (Received August 29, 2011)