1077-65-1405    **Andrew N Zemke\*** (`drew.zemke@gmail.com`), School of Mathematical Sciences, Rochester Institute of Technology, 85 Lomb Memorial Drive, Rochester, NY 14623, and **Akhtar Khan**. *Identification of Certain Parameters in Fourth Order Boundary Value Problems.*

This talk will focus on the inverse problem of identification of certain variable parameters in fourth order boundary value problems. The main emphases will be on the use of the generalized output least-squares functional for solving the inverse problem. Regularization will be used to handle the data perturbation. The case of smooth as well as non-smooth coefficients will be considered. Finite element based numerical examples will be presented. (Received September 19, 2011)