## 1125-34-859

Jeffrey W. Lyons\* (jlyons@nova.edu), Nova Southeastern University, FAR-MCT, 3301 College Ave, Ft. Lauderdale, FL 33025, and Samantha A. Major. Continuous Dependence and Differentiating Solutions of an nth Order Boundary Value Problem with Integral Conditions.

Using a few conditions, continuous dependence, and a result regarding smoothness of initial conditions, we show that derivatives of solutions with respect to the various boundary data of an nth order boundary value problem with integral boundary conditions solve the associated variational equation with interesting boundary conditions. A corollary is provided. (Received September 12, 2016)