1116-39-53Jeffrey T Neugebauer* (jeffrey.neugebauer@eku.edu), 521 Lancaster Ave., 313 Wallace
Building, Eastern Kentucky University, Richmond, KY 40475-3133. Existence and Comparison
Results for Fourth Order Discrete Eigenvalue Problems.

We study the existence and comparison of smallest positive eigenvalues of the fourth order difference equations $\Delta^4 y_{i-2} = \lambda_1 p_i y_i$, $\Delta^4 y_{i-2} = \lambda_2 q_i y_i$, $i \in \{1, \ldots, n\}$, each satisfying the boundary conditions $y_0 = \Delta^2 y_{-1} = \Delta y_n = \Delta^3 y_{n-1}$, by applying the theory of u_0 -positive operators with respect to a cone in a Banach space. (Received June 26, 2015)