1046-39-1890 Kenneth S. Berenhaut (berenhks@wfu.edu), Department of Mathematics, Wake Forest University, Winston-Salem, NC 27109, and Nathaniel G Vish* (vishng7@wfu.edu), Department of Mathematics, Wake Forest University, Winson-Salem, NC 27109. Equations of convolution type with monotone coefficients.

In this talk we consider convolution type linear difference equations with coefficients satisfying some monotonicity properties. Methods from renewal theory are employed to obtain easily verified conditions for asymptotic stability of the zero solution, in terms of the coefficient sequence. Explicit bounds and rates of convergence are considered, and an application to matrix inverses is included. Some related equations are also discussed. (Received September 16, 2008)