1046-39-1963 Richard T Guy* (guyrt7@wfu.edu), Department of Mathematics, Wake Forest University, Winston-Salem, NC 27109, and Kenneth S Berenhaut (berenhks@wfu.edu), Dept. of Mathematics, Wake Forest University, Winston-Salem, NC 27109. Symmetric functions and difference equations with asymptotically periodic solutions.

In this talk we employ symmetric functions to develop easily verified conditions which guarantee that all solutions to the equation $y_n = f(y_{n-k}, y_{n-m})$, with $k, m \ge 1$ and gcd(k, m) = 1 are asymptotically periodic with period two. Asymptotic stability and complex periodic stucture for more general equations involving multiple delays is also considered. Several examples involving ratios are presented. In addition, we present generalizations to minimum difference equations and introduce some open questions. (Received September 16, 2008)