

1116-41-2044 **Xiang-Sheng Wang*** (xswang@semo.edu). *Asymptotic analysis of difference equations*. Preliminary report.

Difference equations arise naturally from the study of orthogonal polynomials and continued fractions. In this talk, we will investigate asymptotic behaviors of solutions to difference equations with general coefficients. A unified technique will be developed to study asymptotic solutions in the outer and oscillatory regions, respectively. Uniform asymptotic solutions near the origin will also be discussed. (Received September 21, 2015)