1116-05-221 **Rekha Biswal**, **Vyjayanthi Chari**, **Lisa Schneider*** (schneiderl@susqu.edu) and **Sankaran Viswanath**. *Demazure Flags, Chebyshev Polynomials, Mock and Partial Theta Functions.*

In this talk, I will present recent joint work with Rekha Biswal, Vyjayanthi Chari, and Sankaran Viswanath concerning the multiplicities associated to Demazure flags of Demazure modules for the current algebra $\mathfrak{sl}_2[t]$. I will first introduce the notion of a Demazure flag and the associated q-multiplicities. Then I will define generating series which encode these q-multiplicities. Using previous results in representation theory, I will present recursive formulae for these series. Then I will discuss the interesting combinatorics that arise from special cases and the specialization to $q = 1$. In particular, I will relate these series to Chebyshev polynomials, partial theta functions, and fifth order mock theta functions of Ramanujan. (Received August 14, 2015)