1092-13-218      **Ashwini Bhat**, **Jennifer Biermann\*** (jbierman@mtholyoke.edu) and **Adam Van Tuyl**.
*Generalized cover ideals and the persistence property.*

Let $I$ be a square-free monomial ideal in $R = k[x_1, \ldots, x_n]$, and consider the sets of associated primes $\mathrm{Ass}(I^s)$ for all integers $s \geq 1$. We introduce a family of square-free monomial ideals that can be associated to a finite simple graph $G$ that generalizes the cover ideal construction. When $G$ is a tree, we show our ideals satisfy the persistence property. We also describe the elements of $\mathrm{Ass}(I^s)$, and explicitly determine the index of stability. (Received August 10, 2013)