

## Discrete Mathematics Seminar

Time: Friday, 15 February 2013, 1:00 – 2:00 PM

Location: 238 Derrick Hall

Title: Toric Subrings Associated to Graphs

Speaker: Dr. Joseph Brennan, Department of Mathematics, University of Central Florida

### **Abstract:**

Associated to every finite graph is a monomial subalgebra of a polynomial ring. For a graph  $G = (V, E)$  this subring can be realized as the image of the natural map  $k[E] \rightarrow k[V]$ . This talk will present a survey of the dictionary that is being built connecting graph properties with homological properties of the associated algebra with particular attention to the structure of syzygies.