1114-18-125   **Bethany Kubik*** (bakubik@d.umn.edu) and **Sean Sather-Wagstaff** (ssather@clemson.edu).
                     Path Ideals of Weighted Graphs.

We explore weighted graphs and their "path ideals" which are ideals in polynomial rings that are defined based on the existing paths of the graphs. We discuss the decomposition of a path ideal and the relation to minimal vertex covers for paths. We examine Cohen-Macaulay weighted graphs in the case of K_3. (Received August 19, 2015)