1099-18-112 **Bethany Kubik*** (`bethany.kubik@usma.edu`) and **Sean Sather-Wagstaff** (`sean.sather-wagstaff@ndsu.edu`). *Path Ideals.* Preliminary report.

We explore weighted graphs and their "path ideals" which are ideals in polynomial rings that are defined based on the existing paths of the graph. We discuss the decomposition of a path ideal and Cohen-Macaulay wieghted graphs in the case of trees and complete graphs. (Received February 03, 2014)