1106-13-1540 **Hailong Dao*** (hdao@ku.edu), Department of Mathematics, University of Kansas, Lawrence, KS 66045, and **Jay Schweig**, Department of Mathematics, Oklahoma State University, Stillwater, OK 74078. *Bounding projective dimension via domination parameters.*

Let I be an ideal in a polynomial ring R. The projective dimension is the shortest length of a projective resolution of I. When I is a squarefree monomial ideal, Hochster's Formula allows us to relate projective dimension of I and the homology of subcomplexes of an associated simplicial complex known as the Stanley-Reisner complex of I.

We start with the case when I is the edge ideal of a graph and show how graph domination parameters, invariants which measure how easy it is to "cover" a graph with various subgraphs, can be used to bound these invariants. Then we explain how some of these results generalize for any square free monomial ideal, and therefore any simplicial complex. (Received September 14, 2014)