1018-13-214 **K. Dalili*** (dalili@mathstat.dal.ca), **S. Faridi** and **W. Traves**. *Reconstruction of Hilbert function and Betti numbers of a graph.*

Given a graph G, with vertex set $v_1, \ldots, v_n$, it's deck is the collection of unlabeled graphs $G \setminus \{v_i\}$. An invariant of a graph is said to be reconstructible if it has the same value for any two graphs with the 3 or more vertices and the same deck. Reconstructing graph theoretic invariants has been studied extensively by graph theorist in hopes of proving the isomorphism class of G is reconstructible. In this talk we will discuss reconstruction of the algebraic invariants of a graph, we will prove the Hilbert function and most of the Betti diagram of the graph are reconstructible. This is work in progress with Sara Faridi and William Traves. (Received March 07, 2006)