1125-05-1780 Arran Hamm and Kristen Melton* (meltonk6@mailbox.winthrop.edu). A Lower Bound on the Hadwiger Number of a Random Subgraph of the Kneser Graph.

Hadwiger's Conjecture is one of the most famous open problems in graph theory; it states that $h(G) \ge \chi(G)$ for any graph G (where h(G) is the hadwiger number of G). A theorem of Kostochka gives a lower bound on h(G) in terms of the average degree of G. This talk will be focused on giving a lower bound on h(G) where G is a (binomial) random subgraph of a Kneser graph. (Recall: A Kneser graph with parameters n and k, denoted KG(n, k), has the set of k-subsets of $\{1, \ldots, n\}$ as its vertex set where two k-sets are adjacent if and only if they are disjoint.) So G is given by keeping each edge of KG(n, k) independently with probability p. For certain values of n, k, and p we improve upon the bound given in Kostochka's theorem. (Received September 19, 2016)