

In this thesis, we will discuss existence of hamiltonian cycles in Kneser graphs: graphs  $K(n,k)$  with vertex set corresponding to  $k$ -element subsets from set of  $n$  elements, and vertices will be adjacent if and only if their corresponding  $k$ -sets are disjoint. Lovász's conjecture about vertex transitive graphs implies hamiltonicity of Kneser graphs for  $n \geq 2k + 1$ . Chen proved that  $K(n,k)$  are hamiltonian for  $n \geq 3k$ . Later she improved her result to  $n \geq 2.6k + 1$ . In both cases she used Baranyai's partition theorem. Recent proof of Middle levels conjecture allowed to show hamiltonicity of bipartite Kneser graphs. We will get familiar with some these results.