1116-VF-2185 **Misa Nakanishi*** (misa.nakanishi@gmail.com). *The decomposition of a cubic graph for the domination number.*

We investigate the domination number and independent domination number for a graph. It is fundamental to decompose a graph into two parts so that the domination number is counted for each part. First, we give a decomposition of general graphs. Second, we consider it for a cubic graph. Previously, it was conjectured that the difference between the domination number and independent domination number for a cubic graph with connectivity three is at most one and it was disproved. In this talk, we present that the domination number and independent domination number for a cubic graph are the same as the lower bounds. A cubic graph is decomposed into two parts that have minimum dominating sets as independent sets. (Received September 22, 2015)