

1125-VF-2300 **Elizabeth Donovan*** (edonovan@murraystate.edu). *An informative invariant: the neighborhood degree list.*

The neighborhood degree list (NDL) is a graph invariant that refines information given by the degree sequence and joint degree matrix of a graph and is useful in distinguishing graphs having the same degree sequence. We show that the space of realizations of an NDL is connected via a switching operation. We then determine the NDLs that have a unique realization by a labeled graph; the characterization ties these NDLs and their realizations to the threshold graphs and difference graphs. (Received September 20, 2016)