

1109-05-70

Christian Barrientos and **Sarah Minion*** (sarah.m.minion@gmail.com). *A Classification of Alpha Graphs.*

When a graceful labeling of a bipartite graph places the smaller labels in one of the stable sets of the graph, it becomes an α -labeling. This is the most restrictive type of difference-vertex labeling and it is located at the very core of this research area. Here we use an extension of the adjacency matrix to count, not only, the number of α -labeled graphs of size n but also to count and classify them according to their order and boundary value. (Received January 20, 2015)