1154-VP-2779

Grant Fickes, Dylan Green, Jonelle Hook, Karen McCready* (karenmccready@kings.edu), Kathleen Ryan, Jill Stifano and Nathaniel Sauerberg. Properly connected graphs and going the distance.

An edge-colored path is properly colored if adjacent edges receive distinct colors. An edge-colored graph is properly connected if each pair of vertices in the graph is connected by at least one properly colored path. In such a graph we extend the idea of diameter to that of proper diameter, a function of both the graph and its coloring, which is defined to be the maximum length of a shortest properly colored path between any two vertices in the graph. In this talk we will investigate properties of proper diameter for bipartite graphs. (Received September 17, 2019)