

1135-05-1811 **John Sinkovic*** (johnsinkovic@gmail.com) and **Zachary Dockstader**. *The inertia bound for a graph*. Preliminary report.

The inertia bound is an upperbound on the independence number of a graph. Attributed to D.M. Cvetković, and sometimes referred to as the Cvetković bound, it uses eigenvalues of adjacency-like matrices. It was shown recently that graphs exist for which this bound is not tight. We share some results from a recent undergraduate research project focused on finding such graphs. (Received September 25, 2017)