Some graphs whose maximum nullity and zero forcing number are the same.

It is known that the zero forcing number of a graph is an upper bound for the maximum nullity of the graph. In this talk, we introduce a new graph parameter which acts as a lower bound for the maximum nullity of a graph. As a result, we show that the Aztec Diamond graph’s maximum nullity and zero forcing number are the same. Another graph parameter that is considered is the vertex connectivity which is used to establish results on some circulant graphs. (Received September 10, 2019)