

1129-13-173

Jennifer Biermann, Augustine O’Keefe* (aokeefe@conncoll.edu) and **Adam Van Tuyl**.

Bounds on the regularity of toric ideals of graphs.

Let G be a finite simple graph. We give a lower bound for the Castelnuovo-Mumford regularity of the toric ideal I_G associated to G in terms of the sizes and number of induced complete bipartite graphs in G . When G is a chordal bipartite graph, we find an upper bound for the regularity of I_G in terms of the size of the bipartition of G . (Received March 13, 2017)