1120-13-245Jennifer Biermann, Augustine O'Keefe* (aokeefe@conncoll.edu) and Adam Van Tuyl.An upper bound on the regularity of toric ideals of graphs. Preliminary report.

Given a finite simple graph G, one can associate a toric ideal which we call I_G . We say that G is a chordal bipartite graph if it has no induced cycles of length six or larger. For such graphs, we find an upper bound on the Castelnuovo-Mumford regularity of I_G in terms of the size of the bipartition of G. (Received February 22, 2016)