1115-13-148 **Jorge Neves**, **Maria Vaz Pinto*** (vazpinto@math.tecnico.ulisboa.pt) and **Rafael Villarreal**. *Regularity of vanishing ideals associated to bipartite graphs.* Preliminary report.

Let X be an algebraic toric set in a projective space, parameterized by the s edges of a simple graph over a finite field K, and let I(X) be the vanishing ideal of X, which is a lattice ideal of S = K[t1,...,ts]. For certain families of graphs, we find explicit sets of binomial generators for I(X), obtained combinatorially from the respective graphs, and use those generators to compute the Castelnuovo-Mumford regularity of S/I(X). (Received September 14, 2015)