1011-05-329 Diana Carr* (CARRD1@central.edu). The Tree Congestion of Graphs.

Edge congestion can be thought of as the cutwidth of a graph. In this paper we embed complete tripartite graphs into trees and spanning trees and determine the tree congestion and the spanning tree congestion. Considering a known theorem relating detours, tree congestion, and spanning tree congestion we summarize results calculated for trees, complete bipartite graphs, and grids. In addition, we investigate the congestion for other families of graphs. (This research was supported by the University of California San Bernardino REU program.) (Received August 30, 2005)