1146-05-478 **Paul Horn*** (`paul.horn@du.edu`) and **Adam Purcilly**. *Rounting Numbers of Dense and Expanding Graphs.*

Consider the following process, originally introduced by Alon, Chung and Graham, on a graph: A labeled chip is put on each vertex, and a permutation of the vertices is selected. At any given timestep, a (not necessarily perfect) matching is selected, and the chips at the endpoints are exchanged. The goal is to move each chip from it's initial vertex to its target (as given by the permutation) in as few moves as possible. The routing number is the maximum number of this minimum number of moves over all permutations. Alon, Chung and Graham studied this parameter in the early 90s and proved a number of results; including a general bound based on the spectral gap. We improve this bound for graphs that are either sufficiently dense or have a sufficiently good spectral gap, proving (in many cases) a constant bound on the routing number – that is a bound depending on the degree, but not on the order of the graph. (Received January 28, 2019)