1158-05-316   **Theo McKenzie*** (`mckenzie@math.berkeley.edu`). *Eigenvalue Multiplicity Bounds on the Adjacency Matrix.*

The maximum multiplicity of the second eigenvalue of the adjacency matrix of a graph has recently been shown to solve the equiangular lines problem. Moreover, the multiplicity of this eigenvalue gives information on the speed of convergence of the power method. Here we give bounds on the multiplicity of the second eigenvalue using netting arguments and the theory of nodal domains. (Received March 03, 2020)