CHARACTERIZING GRAPHS OF MAXIMUM PRINCIPAL RATIO

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Abstract. The principal ratio of a connected graph, denoted \( \gamma(G) \), is the ratio of the maximum and minimum entries of its Perron eigenvector. Cioabă and Gregory (2007) conjectured that the graph on \( n \) vertices maximizing \( \gamma(G) \) is a kite graph, that is, a complete graph with a pendant path. In this paper, their conjecture is proved.

Key words. Spectral radius, Irregular graph, Eigenvectors.

AMS subject classifications. 05C50, 15A18.

*Received by the editors on December 21, 2015. Accepted for publication on November 13, 2017. Handling Editor: Bryan L. Shader. Corresponding Author: Michael Tait.

†Department of Mathematical Sciences, Carnegie Mellon University. Research partially supported by NSF grants DMS-1606350 and DMS-1362650.

‡Department of Mathematical Sciences, Carnegie Mellon University. Research partially supported by NSF grant DMS-1362650.