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AN UPPER BOUND ON ALGEBRAIC CONNECTIVITY OF GRAPHS WITH MANY CUTPOINTS*

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Abstract. Let G be a graph on n vertices which has k cutpoints. A tight upper bound on the algebraic connectivity of G in terms of n and k for the case that $k > n/2$ is provided; the graphs which yield equality in the bound are also characterized. This completes an investigation initiated by the author in a previous paper, which dealt with the corresponding problem for the case that $k \leq n/2$.

Key words. Laplacian matrix, algebraic connectivity, cutpoint.

AMS subject classifications. 05C50, 15A48

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