THE (SIGNLESS) LAPLACIAN SPECTRAL RADII OF C-CYCLIC GRAPHS WITH N VERTICES AND K PENDANT VERTICES

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Abstract. A connected graph is called a c-cyclic graph if it contains n vertices and \( n + c - 1 \) edges. Let \( C(n, k, c) \) denote the class of connected c-cyclic graphs with \( n \) vertices and \( k \) pendant vertices. Recently, the unique extremal graph, which has greatest (respectively, signless) Laplacian spectral radius, in \( C(n, k, c) \) has been determined for \( 0 \leq c \leq 3 \), \( k \geq 1 \) and \( n \geq 2c + k + 1 \). In this paper, the unique graph with greatest (respectively, signless) Laplacian spectral radius in \( C(n, k, c) \) is determined for \( c \geq 0 \), \( k \geq 1 \) and \( n \geq 2c + k + 1 \).

Key words. (Signless) Laplacian spectral radius, c-Cyclic graph, Pendant vertex.

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