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THE SIGNLESS p–LAPLACIAN SPECTRAL RADIUS OF GRAPHS WITH GIVEN PARAMETER

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Abstract. This paper considers the spectral radius of signless p-Laplacian of a graph, which is a generalization of the quadratic form of the signless Laplacian matrix for $p = 2$. Let $\mathscr{G}_{n,k}$, $\mathscr{G}_n^k$ and $\mathscr{G}_n^d$ be the set of connected graphs of order n with k cut vertices, k cut edges and fixed diameter d, respectively. The graphs maximizing the signless p-Laplacian spectral radius among $\mathscr{G}_{n,k}$, $\mathscr{G}_n^k$ and $\mathscr{G}_n^d$ are characterized.

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