
ACYCLIC MATRICES WITH A P-SET WITH MAXIMUM SIZE

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ABSTRACT

Given an $n \times n$ symmetric matrix A , $A(\alpha)$ denotes the principal submatrix of A obtained after deleting the rows and columns indexed by $\alpha \subset \{1, \dots, n\}$. By $m_A(0)$ we mean the nullity of A . If $m_{A(\alpha)}(0) = m_A(0) + |\alpha|$, then we call α a *P-set* of A . In this talk we provide several new characterizations of trees the maximal size of a P-set. We will review the main recent developments and give some illustrative examples.

Keywords Parter vertices · P-set · eigenvalues · multiplicities · nullity · matrices

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