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MI 48858. *A Classification of Types of Trees.*

Let $L(G)$ be the Laplacian matrix of a simple graph G . the characteristic valuation associated with the algebraic connectivity $a(G)$ is used in classifying trees as Type I and Type II. In this paper, we prove that a tree T is Type I if and only if the algebraic connectivity $a(T)$ is in the spectrum of $\hat{L}(B)$ for some branch B of T . (Received July 10, 2000)