Zhang, Xiaodong
On the two conjectures of Graffiti. (English) Zbl 1051.05062

Summary: We study the Laplacian eigenvalues of trees on $n$ vertices with independence number $\alpha$ and describe all extremal graphs that attain the maximal Laplacian spectral radius and algebraic connectivity. Then the results are used to confirm two conjectures of Graffiti (WOW Conjectures 584 and 636) on the relationship between the Laplacian eigenvalues and the independence number of a graph.

MSC:
05C50 Graphs and linear algebra (matrices, eigenvalues, etc.)
05C69 Vertex subsets with special properties (dominating sets, independent sets, cliques, etc.)

Keywords:
Graffiti’s conjecture; Laplacian eigenvalue; Tree; Independence number

Full Text: DOI

References:

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.