On a Conjecture on Spanning Trees with few Branch Vertices

Ronald Gould, Warren Shull*, Emory University

A branch vertex of a tree is a vertex of degree at least three. Matsuda, et. al. [7] conjectured that, if n and k are non-negative integers and G is a connected claw-free graph of order n, there is either an independent set on $2k+3$ vertices whose degrees add up to at most $n-3$, or a spanning tree with at most k branch vertices. The authors of the conjecture proved it for $k=1$; we prove it for $k=2$.

Keywords: format, size, information content