

On the Loebel-Komlós-Sós Conjecture for large spiders.

Gary Tiner, Faulkner University

Let G be a graph with at least half of the vertices having degree at least k . Loebel, Komlós, and Sós conjectured that the graph G contains every tree with k edges. It is known that if the graph G has at most $k + 3$ vertices, then the conjecture holds. A spider is a tree with one vertex of degree at least 3 and all others with degree at most 2. In this paper, we prove that if the number of vertices in the graph G is at most $1.25k$, then G contains every spider with k edges.

Keywords: Loebel, Komlós, Sós, embedding, trees