

On the 7-cordiality of trees

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In 1991, M. Hovey defined the k -cordial labeling of a graph as a function from the set of vertices to \mathbb{Z}_k so that each label appears on at most one more vertex than any other, and each induced edge weight (found by summing the labels on the incident vertices, modulo k) appears on at most one more edge than any other. He conjectured that for any positive integer k , all trees are k -cordial, and showed this holds for $3 \leq k \leq 5$. Driscoll, *et. al.*, proved that all trees are 6 cordial. In this work we discuss the problem of proving all trees are 7-cordial.

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