

1145-05-1621 **Katherine Perry***, kperry56@du.edu. *Rainbow Spanning Trees in Edge-Colored Complete Graphs.*

A spanning tree of an edge-colored graph is rainbow provided that each of its edges receives a distinct color. In 1996, Brualdi and Hollingsworth conjectured that if K_{2m} is properly $(2m - 1)$ -edge-colored, then the edges of K_{2m} can be partitioned into m rainbow spanning trees, except when $m = 2$. In this talk, we'll look at the history and recent results concerning this conjecture and related questions and also consider the extremal question of maximizing and minimizing the number of rainbow spanning trees in K_n , given a special type of $(n - 1)$ -edge-coloring which is surjective and rainbow cycle free, called a *JL-coloring*.

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