1117-05-107   **Julian D Allagan*** (`julian.allagan@ung.edu`). *F-WORM Coloring Of Some 2-trees: Partition Vectors.*

Suppose $\mathcal{F} = \{F_1, \ldots, F_t\}$ is a collection of distinct subgraphs of a graph $G = (V, E)$. An *$\mathcal{F}$-WORM* coloring of G is the coloring of its vertices such that no copy of a subgraph $F_i \in \mathcal{F}$ is monochrome or rainbow. This generalizes the notion of F-WORM coloring that was introduced recently by W. Goddard, K. Wash, and H. Xu. A (restricted) partition vector $(\zeta_\alpha, \ldots, \zeta_\beta)$ is a sequence whose terms ζ_r are the number of $\mathcal{F}$-WORM colorings using exactly r colors, with $\alpha \leq r \leq \beta$. The partition vectors of some 2-trees are discussed. We found that maximal outerplanar graphs, which are members of 2-trees, share a unique partition vector given a K_3-WORM coloring, contrary to the case of classic proper vertex colorings. (Received January 06, 2016)