On the Choosability of Some Graphs

J.A. Allagan, B. Benkam*, D. Slutzky, University of North Georgia, Gainesville, Georgia

Suppose $ch(G)$ and $\chi(G)$ denote, respectively, the choice number and the chromatic number of a graph $G = (V, E)$. If $ch(G) = \chi(G)$ then $G$ is said to be chromatic-choosable. Recently, Reed et al. proved a conjecture by Ohba that states that $G$ is chromatic-choosable whenever $|V(G)| \leq 2\chi(G) + 1$. Here, we show that chordal graphs are chromatic-choosable. We further provide a construction for the line graph of some wheel multigraphs, $W_l = C_l \vee \{v\}$, to show that they are also chromatic-choosable.

Keywords: List colorings, chromatic-choosable, chordal