

1116-VF-1503 **Jennifer Irene Wise***, University of Illinois, Department of Mathematics, 1409 W Green St,
Urbana, IL 61801, and **Douglas B West**. *Topics in game f -matching*. Preliminary report.

A capacity function f on a graph G assigns a nonnegative integer to each vertex of $V(G)$. An f -matching in G is a set, M , of edges of G such that the number of edges in M incident to v is at most $f(v)$ for all vertices $v \in V(G)$. We consider a competitive version of f -matching, in which two players Max and Min alternately choose edges of G to build an f -matching; the game ends when the chosen edges form a maximal f -matching. Max wants the size of the final f -matching to be large; Min wants it to be small. The *game f -matching number* is the outcome under optimal play. We extend some prior results on the special case of game matching, where $f(v) = 1$ for all $v \in V(G)$, due to Cranston, Kinnersley, O, and West. In particular, we study lower and upper bounds on the game f -matching number and how much the outcome can be affected by who plays first. (Received September 20, 2015)