## Ken-ichi Kawarabayashi, Kenta Ozeki and Michael Plummer*

(michael.d.plummer@vanderbilt.edu). Matching Extension missing Vertices and Edges in Triangulations of surfaces.
Let $G$ be a 5 -connected triangulation of a surface $\Sigma$ different from the sphere and let $\chi=\chi(\Sigma)$ be the Euler characteristic of $\Sigma$. Suppose that $V_{0} \subseteq V(G)$ with $\left|V(G)-V_{0}\right|$ even and that $M$ and $N$ are two matchings in $G-V_{0}$ of sizes $m$ and $n$ respectively such that $M \cap N=\emptyset$. It is shown that if the pairwise distance between any two elements of $V_{0} \cup M \cup N$ is at least 5 and the face-width of the embedding of $G$ in $\Sigma$ is at least $\max \{20 m-8 \chi-23,6\}$, then there is a perfect matching $M_{0}$ in $G-V_{0}$ containing $M$ such that $M_{0} \cap N=\emptyset$. (Received January 01, 2017)

