1080-05-325 **Daniel Slilaty***, Department of Mathematics and Statistics, Wright State University, Dayton, OH 45435, and **Thomas Zaslavsky**. *Strong-map images of graphic matroids.*

Consider a graph G and its cycle matroid $M(G)$. Any single-element coextension (and hence any elementary lift) of $M(G)$ defines a linear class of circuits of $M(G)$ and every linear class of circuits of $M(G)$ yields a single-element coextension. If $L(G,B)$ is the lift of $M(G)$ defined by the linear class of circuits B, then $L^*(G,B)$ is an elementary strong-map image of $M^*(G)$. The elementary lifts of $M(G)$ and their duals (the strong-map images of $M^*(G)$) have been in fairly widespread use in matroid theory for several decades. The strong-map images of $M(G)$ and their duals (the elementary lifts of $M^*(G)$) have been explored less. In this talk we will discuss strong-map images of $M(G)$ and give a combinatorial characterization of the elementary ones. (Received January 31, 2012)