1146-05-16 **Carolyn Chun** (chun@usna.edu) and **Deborah Chun*** (deborah.chun@mail.wvu.edu), 410 Neville Street, Beckley, WV 25801, and **Tyler Moss** (jtmoss@mail.wvu.edu) and **Steve Noble** (s.noble@bbk.ac.uk). *e-exchange basis graph and matroid connectedness.*

Suppose M is a matroid. The basis graph, G, of M has the bases of M as its vertices. Two vertices in G are adjacent when the symmetric difference of the bases has size two. It is easy to see that the basis graph of any matroid is connected. Suppose e is an element of M. The e-exchange basis graph of M has the bases of M as its vertices, and two vertices are adjacent when the symmetric difference of the bases is $\{e, f\}$ for some $f \in E(M) - e$. In this talk, we will characterize exactly when these graphs are connected. We will show that a matroid M is connected if and only if the e-exchange basis graph of M is connected for every element e. (Received November 07, 2018)