1145-05-983 **Lauren M. Nelsen*** (lauren.nelsen@du.edu) and **Paul Horn**. *Rainbow spanning trees in general graphs.*

A rainbow spanning tree in an edge-colored graph is a spanning tree in which each edge is a different color. Carraher, Hartke, and Horn showed that for n and C large enough, if G is an edge-colored copy of K_n in which each color class has size at most $n/2$, then G has at least $\lfloor n/(C \log n) \rfloor$ edge-disjoint rainbow spanning trees. Here we strengthen this result by showing that if G is *any* edge-colored graph with n vertices in which each color appears on at most $\delta \cdot \lambda_1/2$ edges, where $\delta \geq C \log n$ for n and C sufficiently large and λ_1 is the second-smallest eigenvalue of the normalized Laplacian matrix of G, then G contains at least $\left\lfloor \frac{\delta \cdot \lambda_1}{C \log n} \right\rfloor$ edge-disjoint rainbow spanning trees. (Received September 17, 2018)