1035-05-1158 **Futaba Okamoto*** (okamoto.futa@uwlax.edu), Mathematics Dept., University of Wisconsin - La Crosse, 1725 State St., La Crosse, WI 54601. *Rainbow Connectivities of Graphs.*

A path P in an edge-colored graph (not necessarily a proper edge-coloring) is a rainbow path if no two edges of P are assigned the same color. For a connected graph G with connectivity $\kappa(G)$ and an integer k with $1 \leq k \leq \kappa(G)$, the rainbow k-connectivity $\mathrm{rc}_k(G)$ of G is the minimum number of colors needed in an edge-coloring of G such that every two distinct vertices u and v of G are connected by at least k internally disjoint u - v rainbow paths. We present some results and open questions in this area of research. (Received September 18, 2007)