1014-05-596 **Henry Enriquez Escuadro*** (henry.escuadro@wmich.edu), Mathematics Department, Western Michigan University, 1903 Michigan Avenue, Kalamazoo, MI 49008. *On Detectable Colorings of Graphs.*

Let G be a connected graph of order $n \geq 3$ and let $c : E(G) \to \{1, 2, \ldots, k\}$ be a coloring of the edges of G (where adjacent edges may be colored the same). For each vertex v of G, the color code of v with respect to c is the k-tuple $c(v) = (a_1, a_2, \ldots, a_k)$, where a_i is the number of edges incident with v that are colored $i (1 \leq i \leq k)$. The coloring c is detectable if distinct vertices have distinct color codes. The detection number $\det(G)$ of G is the minimum positive integer k for which G has a detectable k-coloring. I am going to present results that have been obtained about the detection number of graphs. (Received September 21, 2005)