1073-05-68 **Sogol Jahanbekan**, **Jaehoon Kim** and **Suil O*** (`suilo2@math.uiuc.edu`), 409 W. Green Street, Urbana, IL 61801, and **Wipawee Tangjai** and **Doulgas B West**. *r-dynamic coloring of graphs.* Preliminary report.

An r-dynamic proper k-coloring of a graph G is a proper k-coloring of G such that every vertex in $V(G)$ has neighbors in at least $\min\{d(v), r\}$ different color classes. The r-dynamic chromatic number of a graph G, written $\chi_r(G)$, is the least k such that G has an r-dynamic proper k-coloring. Our main result in this talk is that if G is a k-regular graph and $k \geq 7r \ln r$, then $\chi_r(G) \leq r\chi(G)$, where $\chi(G)$ is the chromatic number of G. In addition, we study the 2-dynamic chromatic number of a graph and the r-dynamic chromatic number of the cartesian product of two graphs. (Received July 26, 2011)