1135-05-1718 **Murong Xu*** (xumurong@math.wvu.edu), 320 Armstrong Hall, P.O. Box 6310, West Virginia University, Morgantown, WV 26506, and **Hong-Jian Lai** and **Xuezheng Lv**. *On $r$-hued coloring of graphs without short induced paths.*

For integers $k, r > 0$, a $(k, r)$-coloring of a graphs $G$ is a proper coloring on the vertices of $G$ with $k$ colors such that every vertex $v$ of degree $d(v)$ is adjacent to vertices with at least $\min\{d(v), r\}$ different colors. The $r$-hued chromatic number, denoted by $\chi_r(G)$, is the smallest integer $k$ for which a graph $G$ has a $(k, r)$-coloring. Some of the recently achieved results on $r$-hued coloring of $P_4$-free graphs and $P_5$-free graphs will be presented. (Received September 24, 2017)