1060-05-226 Spencer N. Tofts\* (tofts@udel.edu), 6 Spring Hill Lane, Newark, DE 19711, and Felix Lazebnik. Another Extremal Property of Turán Graphs.

For an integer  $n \geq 3$ , let  $T_n(v)$  denote the Turán n-partite graph of order v, and let  $t_n(v)$  denote the number of edges of  $T_n(v)$ . For a simple graph G and a positive integer  $\lambda$ , let  $P_G(\lambda)$  denote the number of proper vertex colorings of G in at most  $\lambda$  colors. We prove that for every graph G of order v and size  $t_n(v)$ ,  $P_G(n+1) \leq P_{T_n(v)}(n+1)$ , with the equality attained if and only if  $G = T_n(v)$ . The work extends some other related results, old and new. (Received March 30, 2010)