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Xiaowei Yu. *New bounds on the locally irregular chromatic index.*

A graph is *locally irregular* if the degree of every vertex is distinct from the degrees of all of its neighbors. A *locally irregular edge-coloring* of a graph G is an (improper) edge-coloring such that the graph consisting of the edges of any color class is locally irregular. It is conjectured that every graph has a locally irregular edge-coloring using at most three colors. Recently, Bensmail et al. proved that 328 colors sufficed, the first constant upper bound for the problem. Borut et al. later improved this result to 220. We improve the bound on bipartite graphs to five and as a consequence improve the upper bound on general graphs to 183. (Received February 12, 2018)