1077-05-519   **Hsin-Hao Lai*** (`hsinhaolai@nknucc.nknu.edu.tw`) and **Ko-Wei Lih**. *Acyclic List Edge Coloring of Planar Graphs.*

A proper edge coloring of a graph is said to be *acyclic* if any cycle is colored with at least three colors. The *acyclic chromatic index*, denoted $a'(G)$, is the least number of colors required for an acyclic edge coloring of G. An *edge-list L* of a graph G is a mapping that assigns a finite set of positive integers to each edge of G. An acyclic edge coloring ϕ of G such that $\phi(e) \in L(e)$ for any $e \in E(G)$ is called an *acyclic L-edge coloring* of G. A graph G is said to be *acyclically k-edge choosable* if it has an acyclic L-edge coloring for any edge-list L that satisfies $|L(e)| \geq k$ for each edge e. The *acyclic list chromatic index* is the least integer k such that G is acyclically k-edge choosable.

In a joint work with Ko-Wei Lih, we establish various upper bounds for the acyclic list chromatic indexes of seveval classes of planar graphs. (Received September 06, 2011)