1125-05-2924 **Arthur F Diep-Nguyen*** (diepnguy@bc.edu), 2915 Somerset Place, San Marino, CA 91108, and **Dylan King**. *Strategies for Weak Cop Number on Tilings of the Plane.* Preliminary report.

Traditionally, Cops and Robbers is a pursuit game played on a finite, connected graph. k cops and a single robber are placed on the vertices of a graph and take turns moving to adjacent vertices. If a cop occupies the same vertex as the robber, then the cops win; if the robber perpetually avoids the cops, then he wins. Much of the literature focuses on determining the cop number of a graph; the minimum number of cops needed to always capture the robber. Our research focuses on the infinite analogue to the traditional Cops and Robbers game, which involves infinite graphs and the weak cop number: the minimum number of cops to prevent the robber from returning to the same vertex infinitely often. In particular, we attempt to determine the weak cop number of infinite, locally-finite, connected, planar graphs using a combination of strategies: two of them from others' work and one developed by us. (Received September 20, 2016)