

Meeting: 998, Houston, Texas, SS 1A, Special Session on Graph Theory and Combinatorics

998-05-404 **Glenn Hurlbert*** (hurlbert@asu.edu), Department of Mathematics and Statistics, Arizona State University, Phoenix, AZ 85287-1804. *New Variations on the Theme of Graph Pebbling: Cover Pebbling and Fractional Pebbling*. Preliminary report.

Given a configuration of pebbles on the vertices of a graph, a pebbling step consists of removing two pebbles from a particular vertex and placing one pebble on an adjacent vertex. The pebbling number of the graph is the minimum number of pebbles necessary so that from any initial configuration of those pebbles one can reach any chosen root vertex via some sequence of pebbling steps. In this talk we will introduce two variations on this theme and discuss new results and open questions. (Received March 02, 2004)