1086-VN-863 **André Kündgen** and **Alex Toole*** (`toole002@cougars.csusm.edu`), 320 Talon Ridge Way Apt #372, Oceanside, CA 92058. *Nonrepetitive Colorings of Grid Graphs.*

A *Nonrepetitive coloring* of a graph is a coloring of its vertices such that there are no paths for which the color pattern of the first half is repeated on the second half. In this talk we will give a brief history of nonrepetitive graph colorings, as well as bounds on the number of colors required for a specific class of graphs, the grid graphs. For example, the $2 \times n$ grid has a nonrepetitive coloring using at most 5 colors, and 5 colors are necessary when n is at least 9. (Received September 14, 2012)