

1116-K5-1866 **Debra L. Hydorn*** (dhydorn@umw.edu), University of Mary Washington, 1301 College Avenue, Fredericksburg, VA 22401. *Classification of 4x4 arrangements of 16 2-color corner-matching Wang tiles*. Preliminary report.

The 16-possible arrangements that are produced by coloring or not coloring the corners of a square form a corner-matching variation of 2-color Wang tiles. Arrangements of all 16 tiles in a 4 by 4 grid are possible and have some interesting properties, including toral and cylindrical symmetries. These properties lead to a classification based on whether or not the resulting 4 by 4 arrangements can tile the plane. Preliminary results have identified three distinct groups of 4 by 4 arrangements, two of which allow for a periodic tiling of the plane. (Received September 21, 2015)