

1014-53-1202 **Vojislav S Sesum*** (06vss@williams.edu), Williams College, Baxter Hall 6-2538, Williamstown, MA 01267. *Honeycombs in Hyperbolic Surfaces*. Preliminary report.

In 1999, Hales solved a two millennia old problem by showing that the least-perimeter way to divide the Euclidean plane into unit areas is the "honeycomb structure," i.e. the partition by regular hexagons. We generalize the result to compact hyperbolic surfaces by showing that the partition by regular n -gons minimizes perimeter. (Received September 27, 2005)