

## STAR COLORING OUTERPLANAR BIPARTITE GRAPHS

RADHIKA RAMAMURTHI AND GINA SANDERS

*Department of Mathematics  
California State University San Marcos  
San Marcos, CA 92096-0001 USA*

**e-mail:** gsanders@palomar.edu

### Abstract

A proper coloring of the vertices of a graph is called a *star coloring* if at least three colors are used on every 4-vertex path. We show that all outerplanar bipartite graphs can be star colored using only five colors and construct the smallest known example that requires five colors.

**Keywords:** chromatic number, star coloring, outerplanar bipartite graph.

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