

1086-51-2461 **Whan Ghang** and **Zane Martin*** (zan3rm@gmail.com), 1347 Paresky Center, Williamstown,
MA 01267, and **Steven Waruhiu**. *Perimeter-minimizing Planar Tilings by Pentagons*.

Hales proved that regular hexagons provide the least-perimeter way to partition the plane into unit areas. What are the best tilings by pentagons? Could it possibly help to mix in some non-convex pentagons? (Received September 25, 2012)