

1062-05-127

**Stephen J Graves\*** ([sgraves@uttyler.edu](mailto:sgraves@uttyler.edu)), The University of Texas at Tyler, 3900 University Blvd., Tyler, TX 75799. *Tessellations with Arbitrary Growth Rates.*

A tessellation is taken to be an infinite, 1-ended, 3-connected, locally finite, and locally cofinite plane map. When such a tessellation is the induced graph of a tiling of the hyperbolic plane, it is known that the asymptotic growth of the tessellation is exponential. We address an unpublished conjecture of Watkins, that growth rates of such tessellations can be made arbitrarily close to 1. Given any real number  $\xi > 1$ , we use analytic methods to construct a tessellation with growth rate  $\xi$ . (Received August 03, 2010)