

1125-51-750

**Leo Di Giosia, Jahanger Habib and Lea Kenigsberg\***, Lea.kenigsberg@stonybrook.edu, and **Weitao Zhu and Dylinger Pittman**. *Isoperimetry in Euclidean Space with Different Perimeter and Volume Densities*.

The Euclidean log convex density theorem, proved by Gregory Chambers, asserts that in Euclidean space with a log-convex density spheres about the origin are perimeter minimizing. We prove a conjecture of Alvino et al., extending this result to appropriate perimeter density  $r^k$  and volume density  $r^m$ . We seek to extend this result further to other perimeter and volume densities. (Received September 10, 2016)