

1086-49-1558

Andrew Gard* (acgard@owu.edu). *Reverse Isoperimetric Inequalities in \mathbb{R}^3* .

We investigate conditions under which the classical isoperimetric inequality can be reversed. Under appropriate restrictions, most essentially a bound on curvature, we show that volume can be minimized among embedded spheres of common surface area. In at least one case, the unique minimizer is explicitly constructed. (Received September 23, 2012)