1046-53-583 Frank Morgan* (Frank.Morgan@williams.edu), Department of Mathematics and Statistics, Williams College, 18 Hoxsey Street, Williamstown, MA 01267. Isoperimetric balls in cones over tori.

In the cone over a cubic three-torus T^3 , balls about the vertex are isoperimetric if the volume of T^3 is less than pi/16 times the volume of the unit three-sphere. The conjectured optimal constant is 1. (Received September 08, 2008)