1035-51-1879 **Max D. Engelstein\*** (`max.engelstein@yale.edu`), P.O. Box 200565, New Haven, CT 06520.
*Isoperimetric Inequalities on Manifolds with Density.*

We discuss the isoperimetric problem on surfaces with density. We first solve the isoperimetric problem for a few specific manifolds with densities. Finally we look at conditions under which curves are stable and/or minimizing for radial densities in surfaces of revolution. (Received September 20, 2007)