1007-57-224 **David Bachman**, **Daryl Cooper** and **Matthew E White*** (mewhite@calpoly.edu). *Large embedded balls and Heegaard genus in negative curvature.*

We show if M is a closed, connected, orientable, hyperbolic 3-manifold with Heegaard genus g then $g \geq 1/2cosh(r)$ where r denotes the radius of any isometrically embedded ball in M. Assuming an unpublished result of Pitts and Rubinstein improves this to $g \geq 1/2cosh(r) + 1/2$. We also give an upper bound on the volume in terms of the flip distance of a Heegaard splitting, and describe isoperimetric surfaces in hyperbolic balls. This is joint work with David Bachman and Daryl Cooper. (Received February 22, 2005)