John Hempel* (hempel@rice.edu), Mathematice Dept., Rice University, 6100 Main St., Houston, TX 77005-1892. Lower bounds for the distance of a Heegaard splitting. Preliminary report.

The distance of a Heegaard splitting \((M, S)\) of a 3-manifold \(M\) is the minimal distance, in the curve complex of \(S\), between simple closed curves bounding disks on opposite sides of \(S\). We will discuss progress on the program to provide lower bounds for the distance of a splitting in terms of data extracted from a Heegaard diagram for the splitting, and will describe conditions for the case \(g(S) = 2\) and \(\text{distance} \geq 3\). (Received September 20, 2007)