1086-54-1082   **Michael M. Yoshizawa*** (`myoshi@math.ucsb.edu`), Department of Mathematics, South Hall, Room 6607, University of California, Santa Barbara, CA 93106. *High Distance Heegaard Splittings via Dehn Twists.*

In 2001, J. Hempel found examples of Heegaard splittings of arbitrarily high distance by starting with the double of a handlebody H and then applying a high power of a pseudo-Anosov map on the surface ∂H. We show that lower bounds on distance can also be obtained when using a high power of a suitable Dehn twist. In certain cases, this lower bound allows us to determine the exact distance of the resulting splitting. This is one of the first explicit constructions of Heegaard splittings of high distance whose exact distance can be determined. (Received September 18, 2012)