1023-57-494 Robert G. Todd* (rtodd@math.uiowa.edu), Department of Mathematics, 14 Mclean Hall, iowa city, IA 52240. Khovanov Homology, Twist Number and Surfaces.

X.S. Lin and O. Dasbach proved that the sum of the absolute value of the second and penultimate coefficients of the Jones polynomial of an alternating knot is equal to the twist number of the knot. We give a new proof of their result using Khovanov homology. The proof is by induction on the number of crossings using the long exact sequence in Khovanov homology corresponding to the Kauffman bracket skein relation. We will also comment on current work concerning spanning surfaces of a knot. (Received September 14, 2006)