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**David Jordan\*** ([djordan@math.mit.edu](mailto:djordan@math.mit.edu)), 405 South Huntington Ave 1R, Jamaica Plain, MA 02130. *Quantum D-modules, torus braid groups, and the double affine Hecke algebra.*

We describe a technique for constructing representations of the double affine Hecke algebra of type  $A_n$  from a D-module on the quantum group  $U_q(\mathfrak{gl}_N)$ , ( $n, N \in \mathbb{N}$ ), which may be considered a higher genus analog of q-Schur-Weyl duality. Time permitting, we will discuss more recent constructions with Xiaoguang Ma, involving root systems of type  $B$  and  $C$ . (Received January 25, 2010)