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David Jordan* (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)