1119-05-73   **David Jordan** and **Monica Vazirani***, Department of Mathematics, One Shields Ave, Davis, CA 95616. *A Schur-Weyl-like construction of $L(k^N)$ for the DAHA.* Preliminary report.

Building on the work of Calaque-Enriquez-Etingof, Lyubashenko-Majid, and Arakawa-Suzuki, Jordan constructed a functor from quantum D-modules on special linear groups to representations of the double affine Hecke algebra (DAHA) in type A. When we input quantum functions on SL(N) the output is $L(k^N)$, the irreducible DAHA representation indexed by an $N \times k$ rectangle. For the specified parameters, $L(k^N)$ is Y-semisimple. We give an explicit combinatorial description of this module via its Y-weight basis.

This is joint work with David Jordan. (Received February 06, 2016)