1086-16-585   **Aaron D Lauda*** (`lauda@usc.edu`), University of Southern California, 3620 S. Vermont Ave, KAP 108, Los Angeles, CA 90089-2532. *From skew Howe duality to knot invariants.*

Using a version of Howe duality for exterior algebras, Cautis, Kamnitzer, and Licata showed that the braiding (or R-matrix) for tensor products of miniscule representations of sl(n) can be obtained using the Weyl group action. This action can be reinterpreted in terms of planar diagrams called webs leading to the usual diagrammatic description of associated knot invariants. We will discuss how to lift this entire setup to obtain link homology theories from categorified quantum groups using categorical skew Howe duality. (Joint with Hoel Queffelec and David Rose) (Received September 07, 2012)