

1086-16-583

Aaron D Lauda* (lauda@usc.edu), University of Southern California, 3620 S. Vermont Ave,
KAP 108, Los Angeles, CA 90089-2532. *Odd structures arising from categorified quantum groups.*

Looking for higher structure in representation theory led to the discovery of categorified quantum groups. These algebraic structures have a close connection to knot theory via Khovanov homology and other link homology theories. Using ideas from knot theory one can obtain new “odd” versions of categorified quantum groups that lead to surprising new “odd” structures in geometric representation theory including odd analogs of the cohomology of the Grassmannian and Springer varieties. (Joint with Alex Ellis, Mikhail Khovanov, and Heather M. Russell) (Received September 07, 2012)