1158-05-247 Farid Aliniaeifard and Nathaniel Thiem* (thiemn@colorado.edu). Representation theoretic faces of noncommutative symmetric functions. Preliminary report.

Supercharacter theories have given us new ways to think about categorifying combinatorial Hopf algebras via towers of groups. In fact, the approach is sufficiently flexible that we typically get more than one choice for how to realize a given Hopf algebra. This talk explores different ways to categorify the Hopf algebra of non-commutative symmetric functions using permutation modules. These approaches not only imply generalized "labelled" versions of NSym but also naturally lift to Hopf monoids. (Received March 02, 2020)