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Aaron Lauve* (lauve@math.luc.edu), Loyola University Chicago, Department of Math, 1032 W. Sheridan Road, Chicago, IL 60660, and **Franco Saliola** (saliola.franco@uqam.ca). *Hopf algebra structure of the ring of k -Schur functions*. Preliminary report.

The k -Schur functions have many conjecturally equivalent definitions—as well as t -variants, noncommutative and quasi-symmetric variants, and even torus-equivariant variants—and arise in a variety of settings, including (co)homology of the affine Grassmannian, Macdonald/Schur positivity, and more. We highlight some of these. Additionally, the ring $\Lambda_{(k)}$ of k -Schur functions is realized as a Hopf subalgebra of the Hopf algebra Λ of symmetric functions.

Some have found it easier to study the graded dual $\Lambda^{(k)}$, a quotient Hopf algebra of Λ , and its dual k -Schur functions (which happen to be a generalization of Stanley symmetric functions). These two modes of study are equivalent—products being exchanged for coproducts, etc. In this talk, we show that they are in fact *the same*: $\Lambda_{(k)} \cong \Lambda^{(k)}$ as Hopf algebras. We give several variants of this result, then frame it in the context of important open problems in the area. (Received July 29, 2014)