1108-20-169   **Joseph B Timmer*** (`jtimme1@lsu.edu`), 333 Lockett Hall, Louisiana State University, Baton Rouge, LA 70803-4918. *Exact Group Factorizations and Hopf Algebras.*

Given an exact factorization of a finite group $L = FG$, one may construct a bismash product of the "group" algebras $k^G \# kF = H$. These Hopf algebras have many interesting properties that are typically determined by the group, particularly the representations and Frobenius-Schur indicators.

In this talk, we discuss factorizations of the symmetric group S_n, based on our corrected version of a theorem of Wiegold and Williamson, and the resulting Hopf algebras H. We then discuss the theory of Frobenius-Schur indicators of Hopf algebras and how many of these Hopf algebras are "totally orthogonal". That is to say, all the second indicators are $+1$; which is analogous to the well-known result of the symmetric group for the classical Frobenius-Schur indicators of groups. (Received January 09, 2015)