

1106-16-1871      **Maria D Vega\*** (mdvega@ncsu.edu), Department of Mathematics, North Carolina State University, Raleigh, NC , and **Daniel S Sage**. *Twisted Exponents for Hopf Algebras*.

Classically, the exponent of a group is the least common multiple of the orders of its elements. This notion was generalized by Etingof and Gelaki to Hopf algebras. Kashina, Sommerhäuser and Zhu later observed that there is a strong connection between exponents and Frobenius–Schur indicators. In this talk, I will introduce a twisted version of the exponent of modules over a Hopf algebra and generalize results of Etingof and Gelaki to the twisted setting. I will also explain its relationship to twisted Frobenius–Schur indicators for semisimple Hopf algebras. In particular, I will exhibit a new formula for the twisted indicators and use it to prove periodicity and rationality statements. (Received September 15, 2014)