

1030-16-106

**Sara Westreich\*** ([swestric@mail.biu.ac.il](mailto:swestric@mail.biu.ac.il)), The Interdisciplinary Dept. of Soc. Sciences, Bar Ilan University, 52900 Ramat Gan, Israel, and **Miriam Cohen** ([mia@math.bgu.ac.il](mailto:mia@math.bgu.ac.il)), , Israel. *A Verlinde type formula for factorizable ribbon Hopf algebras.* Preliminary report.

For a semisimple factorizable Hopf algebra, the center of  $H$ ,  $Z(H)$  is stable under the quantum Fourier transform  $F$ . This fact can be used to give a short algebraic proof to the Verlinde formula for the semisimple case. When  $H$  is a factorizable ribbon Hopf algebra which is not semisimple, the ideal  $\Lambda_{ad}H$  of  $Z(H)$  is stable under the quantum Fourier transform  $F$ . We use this to show the existence of a Steinberg-like character and to prove a Verlinde-type formula. The Verlinde-type formula involves characters of projective indecomposable  $H$ -modules and of irreducible  $H$ -modules. (Received July 25, 2007)