

Title: Representations , Fourier transforms and a Verlinde-type formula for finite dimensional Hopf algebra.

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Abstract: We shall describe some recent developments in the theory of Hopf algebras. Some aspects of semisimple Hopf algebras (which are necessarily finite-dimensional) will be dealt with on one hand and we shall describe an appropriate Fourier transform and its application to an algebraic proof of the Verlinde formula. Non-semisimple finite dimensional Hopf algebras which are also symmetric as algebras will be shown to lead to generalizations of these ideas.