

Meeting: 1001, Evanston, Illinois, SS 19A, Special Session on Algebraic Representations and Deformations

1001-20-382 **Bhama Srinivasan*** (srinivas@uic.edu), Dept. of Mathematics, m/c 249, University of Illinois at Chicago, 851 S.Morgan St, Chicago, IL 60607. *On the "q to -q" phenomenon.* Preliminary report.

In the representation theory of finite reductive groups one often observes a "q to -q" or "Ennola duality" phenomenon, under which a result for one group is obtained from a similar result for another group by changing a parameter q to $-q$. This was first observed by V.Ennola in 1963 when he constructed the character table of $U(3,q)$ and compared it with that of $GL(3,q)$. In this talk we describe various examples of this kind, including ongoing work on the q -Schur algebra. (Received August 31, 2004)