

1094-20-158

**Bhama Srinivasan\*** ([srinivas@uic.edu](mailto:srinivas@uic.edu)), Department of Mathematics, m/c 249, University of Illinois at Chicago, 851 S.Morgan St, Chicago, IL 60607. *Decomposition matrices of finite general linear groups*. Preliminary report.

An important and difficult problem in the modular representation theory of finite groups is to determine the decomposition matrices. In the case of the representations of the finite general linear group  $GL(n, q)$  in non-defining characteristic, there are connections with Lie theory, in particular with the action of an affine Lie algebra  $\widehat{sl}_e$  and of a Heisenberg algebra  $H_e$  on a Fock space with basis indexed by partitions of all non-negative  $n$ . We describe these connections in this talk. (Received August 21, 2013)