1114-20-294 **Bhama Srinivasan*** (srinivas@uic.edu), Department of Mathematics, m/c 249, 851 S.Morgan Street, Chicago, IL 60607. *Decomposition matrices of finite general linear groups.*

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 and of a Heisenberg algebra on a Fock space with basis indexed by partitions of all non-negative n. We describe these connections in this talk. (Received August 31, 2015)