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Bhama Srinivasan* (srinivas@uic.edu), Department of Mathematics, m/c 249, University of Illinois at Chicago, 851 S.Morgan St, Chicago, IL 60607. *Graded representations of $GL(n, q)$* . Preliminary report.

J.Brundan and A.Kleshchev [Advances in Math. 222 (2009), 1883-1942] showed that cyclotomic Hecke algebras can be graded, and introduced graded decomposition numbers for these algebras. Using their results, Ariki showed that q -Schur algebras can be graded and one can also consider graded decomposition numbers in that case. We prove similar results for $GL(n, q)$, including a graded analog of a result of Dipper-James which connects a part of the ℓ -modular decomposition matrix of $GL(n, q)$ (where ℓ is prime to q) with the decomposition matrix of the q -Schur algebra. (Received November 23, 2011)