1024-20-221 **Julianne G. Rainbolt*** (rainbolt@slu.edu), Department of Mathematics, 221 North Grand Blvd., Saint Louis University, St Louis, MO 63103. *The norm map between the Hecke algebras of the Gelfand-Graev representations of finite groups of Lie type.*

Let G be a connected reductive algebra group defined over a finite field and let F be a Frobenius endomorphism on G. Let G^{F^m} denote the subgroup of G fixed by F^m (m a positive integer). Charles Curtis and Toshiaki Shoji have shown the existence of a homomorphism (called the norm map) between the Hecke algebra of the Gelfand-Graev representation of G^{F^m} and the Hecke algebra of the Gelfand-Graev representation of G^F. This map provides a correspondence between the irreducible representations of G^F that are constituents of the Gelfand-Graev representation of G^F and certain irreducible representations of G^{F^m} that are constituents of the Gelfand-Greav representation of G^{F^m}. A description of how this norm map can be determined in the case where G^F is a unitary group and G^{F^m} is a general linear group will be presented. (Received January 09, 2007)