

1064-20-250

Klaus Lux, Amanda Schaeffer and **C. Ryan Vinroot*** (vinroot@math.wm.edu), Department of Mathematics, College of William and Mary, P. O. Box 8795, Williamsburg, VA 23187. *Strong reality properties of normalizers of parabolic subgroups in finite Coxeter groups.*

If W is a finite Coxeter group, it is a result of Carter that every element of W is a product of two involutions in W . Another result about a finite Coxeter group W is that all of its irreducible complex characters has Frobenius-Schur indicator 1. We prove these results for the normalizer of any parabolic subgroup of W . That is, if W is a finite Coxeter group, P is a parabolic subgroup of W , and $G = N_W(P)$ is the normalizer of P in W , then we prove that every element of G is a product of two involutions in G , and every irreducible complex character of G has Frobenius-Schur indicator equal to 1. (Received September 10, 2010)