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Michael JJ Barry* (mbarry@allegheny.edu), Department of Mathematics, Allegheny College, 520 N. Main, Meadville, PA 16335. *Decomposing Tensor Products and Exterior and Symmetric Squares.*

If K is a field of finite characteristic p and G a cyclic group of order $q = p^t$, we describe a new algorithm for decomposing tensor products of indecomposable KG -modules into a direct sum of indecomposable KG -modules. We use this algorithm to extend reciprocity results of Gow and Laffey relating the exterior and symmetric squares of indecomposable modules when p is odd. (Received July 15, 2010)