1056-20-860 **David J Hemmer*** (dhemmer@buffalo.edu), 244 Mathematics Building, Buffalo, NY 14260. *A combinatorial approach to Specht module cohomology.*

We recently proved some stability type results for Specht module cohomology that resemble known generic cohomology results for algebraic groups. For example

$$\mathrm{H}^1(\Sigma_{pd}, S^{p\lambda}) \cong \mathrm{H}^1(\Sigma_{p^2d}, S^{p^2\lambda}).$$

The proofs use cohomology results for the Borel subgroup of the general linear group, and do not result in explicit isomorphisms. We will discuss the results and propose a new combinatorial proof that seems to work in many cases. (Received September 18, 2009)