1124-16-408 **Jason Gaddis** (gaddisjd@wfu.edu), PO Box 7388, 127 Manchester Hall, Winston-Salem, NC 27109, **Ellen Kirkman** (kirkman@wfu.edu), PO Box 7388, 127 Manchester Hall, Winston-Salem, NC 27109, **W. Frank Moore*** (moorewf@wfu.edu), PO Box 7388, 127 Manchester Hall, Winston-Salem, NC 27109, and **Rob Won** (wonrj@wfu.edu), PO Box 7388, 127 Manchester Hall, Winston-Salem, NC 27109. *On the pertinency of symmetric group actions on (-1)-skew polynomial rings.* Preliminary report.

Let k be a field, A an $\mathbb{N}$-graded k-algebra, and G be a group of graded automorphisms of A. Auslander proved that in case A is the commutative polynomial ring, the skew group ring $A\#G$ is isomorphic to the ring of A^G-linear endomorphisms of A if and only if G does not contain a nontrivial pseudo-reflection.

Recent work of Bao, He and Zhang have couched the existence of such an isomorphism for a general graded algebra in terms of the pertinency of the group action, which is the difference in Gelfand-Kirillov dimensions of $A\#G$ and $(A\#G)/\langle f\rangle$ where f is the Reynolds idempotent. In this preliminary report, we provide some new computations of this invariant when A is the (-1)-skew polynomial ring in n variables, and S_n acts as permutations of A, the details of which use commutative algebra in an interesting way. (Received September 13, 2016)