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Ellen E. Kirkman* (kirkman@wfu.edu), Box 7388, Wake Forest University, Winston-Salem, NC 27109, and **James J. Kuzmanovich** and **James J. Zhang**. *Invariant subrings of $\mathbb{C}_{-1}[x_1, \dots, x_n]$ under permutation actions*. Preliminary report.

Let $A = \mathbb{C}_{-1}[x_1, \dots, x_n]$ be the skew polynomial algebra $x_j x_i = -x_i x_j$ for all $i \neq j$. The symmetric group S_n acts on A by permuting the indices. Let G be a subgroup of S_n . The subring of invariants A^G is an Artin-Schelter Gorenstein algebra. We compare properties of A^G to those of invariants of the commutative polynomial ring $\mathbb{C}[x_1, \dots, x_n]^G$. (Received December 09, 2011)