1057-16-180 **Ellen E Kirkman*** (kirkman@wfu.edu), Box 7388, Wake Forest University, Winston-Salem, NC 27109, **James J Kuzmanovich**, Wake Forest University, and **James J Zhang**, University of Washington, Seattle, WA. *Invariants of AS-Regular Algebras: Complete Intersections.* Preliminary report.

Let G be a finite group acting on an Artin-Schelter regular $\mathbb{C}$-algebra A. Extending results of Watanabe we give conditions when the invariant subring A^G is an Artin-Schelter Gorenstein algebra. When $A = \mathbb{C}[x_1, \cdots, x_n]$ Gordeev (1986) and Nakajima (1984) independently determined when A^G is a complete intersection. We discuss extending these results to other Artin-Schelter regular algebras. (Received January 21, 2010)