1121-16-229 **Robert Won*** (wonrj@wfu.edu). *The noncommutative schemes of generalized Weyl algebras.* Preliminary report.

The first Weyl algebra, A_1, admits a natural $\mathbb{Z}$-grading. Paul Smith showed that gr-A_1, the category of graded A_1-modules, is equivalent to the category of quasicoherent sheaves on a certain quotient stack. Using autoequivalences of gr-A_1, Smith constructed a commutative ring C, graded by finite subsets of the integers and proved that gr-C is equivalent to gr-A_1. Here, we generalize results of Smith by using autoequivalences of a graded module category to construct rings with equivalent graded module categories. For certain generalized Weyl algebras, we use autoequivalences defined in a so that these constructions yield commutative rings. (Received July 18, 2016)