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Josh Stangle* (jstangle@uwsuper.edu), 801 N 28th St, Superior, WI 54880. *n-Canonical Orders and Auslander's Theorem.*

One of the most stunning results in the connection of commutative ring theory to algebraic geometry is Auslander's theorem that states a CM local ring possessing finitely many non-isomorphic indecomposable MCM modules can have at most an isolated singularity. On the commutative side, there have been some generalizations of this in the direction of countable CM type by Huneke and Leuschke. In this talk, we focus on a different generalization by restricting the class of modules. Here we consider modules which are high syzygies of MCM modules over non-commutative rings, exploiting the fact that noncommutative rings allow for finer homological behavior. We then generalize Auslander's Theorem in the setting of complete Gorenstein local domains by examining path algebras, which preserve finiteness of global dimension. (Received July 15, 2019)