

# Artin-Schelter Gorenstein Algebras

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**Abstract:** In commutative ring theory, a ring having finite self-injective dimension is called a Gorenstein ring. In the very beginning of noncommutative algebraic geometry, Artin and Schelter introduced a notion of Gorenstein condition and defined, now called an Artin-Schelter Gorenstein algebra to be a connected graded algebra of finite self-injective dimension with Gorenstein condition. This Gorenstein condition was also used for DG-algebras to define Gorenstein spaces in algebraic topology. In this talk, we will give an overview on Artin-Schelter Gorenstein algebras (basic properties, examples and so on) from the point of view of noncommutative algebraic geometry.