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Dennis Keeler (keelerds@muohio.edu), Department of Mathematics and Statistics, Miami University, Oxford, OH 45056, and **Kim Retert*** (retertk@muohio.edu), Department of Mathematics and Statistics, Miami University, Oxford, OH 45056. *Generalizing Twisted Homogeneous Coordinate Rings*. Preliminary report.

Twisted homogeneous coordinate rings have been generalized several times, for instance as bimodule algebras, twisted multihomogeneous coordinate rings, and twisted section rings. The basic definition of the twisted homogeneous coordinate ring requires a variety, an automorphism, and an invertible sheaf. In ongoing joint work, we have been studying what happens when the automorphism is replaced with a homomorphism, for example the Frobenius map. In this talk, I will discuss some properties of this generalization. (Received August 12, 2008)