1051-13-205 **Meri T Hughes*** (mhughes@umhb.edu), 900 College Street, Belton, TX 76513. *Examining Uniqueness of Minimal Acyclic Complexes from a "Push-Forward" Perspective.*

We discuss conditions for uniqueness among minimal acyclic complexes of finitely generated free modules over a commutative local ring which share a common syzygy module. Although such uniqueness exists over Gorenstein rings, the question has been asked whether two minimal acyclic complexes in general can be isomorphic to the left and non-isomorphic to the right. We examine the possibility of this occurrence from a "push-forward" perspective, that is, given the common syzygy module, determine all possibilities (up to isomorphism) for the next module in the complex. The focus is on rings with radical cube zero. In particular, we investigate the question for graded algebras with a certain Hilbert series, and such monomial algebras possessing a special generator. (Received August 25, 2009)