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**Shaun V Ault\*** (duyat1h@gmail.com), Department of Mathematics, Fordham University, 441 E. Fordham Rd., Bronx, NY 10458. *On the Symmetric Homology of Algebras.*

The interpretation of cyclic homology as derived functors over the category  $\Delta C$  lends itself to many generalizations, such as dihedral and quaternionic homology. In my thesis work with Zbigniew Fiedorowicz, we have studied symmetric homology,  $HS$ , in which the symmetric groups play the role that the cyclic groups do in cyclic homology. In this short presentation, I will give the necessary definitions and constructions for defining symmetric homology, including the construction of homology operations for  $HS$ . A relation with stable homotopy theory will be discussed. (Received August 12, 2008)