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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 ΔC 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)