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**James M Turner\*** (jturner@calvin.edu), Department of Math, 1740 Knollcrest Circle SE,  
Grand Rapids, MI 49546. *Recovering a simplicial algebra from its normalized chains.*

In this talk, we look at simplicial algebras that arise from simplicial operads over a fixed field. In particular, given a field  $k$  and simplicial operad  $O$ , we examine the question: What additional structure on a differentially graded  $k$ -algebra insures that it is the normalized chains of a simplicial  $O$ -algebra? We will indicate a simple result that gives a straightforward description for certain class of operads when  $k$  is rational (recovering results of Quillen and Schwede-Shipley) and when  $k$  is primary and  $O$  is  $E$ -infinity (recovering results of Mandell). We will then close by looking at what modifications are needed for more general types of operads  $O$  when  $k$  is primary. (Received September 10, 2007)