

1033-55-178

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)