1070-55-61 Michael P. Allocca\* (alloccam2@scranton.edu), Department of Mathematics, University of Scranton, Scranton, PA 18510. A Concrete  $L_{\infty}$  Module and Its Induced  $L_{\infty}$  Structure.

 $L_{\infty}$  modules are natural generalizations of Lie modules from a homotopy theoretical point of view. Furthermore,  $L_{\infty}$  modules induce canonical  $L_{\infty}$  algebra structures on the direct sum of their underlying graded vector spaces. We will briefly review these results and explore nontrivial concrete examples. (Received January 21, 2011)