## **ALGEBRA SEMINAR**

## Function complexes, I

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ABSTRACT: This is the continuation of the semester long series on simplicial homotopy theory. For a pair of simplicial sets  $X_{\bullet}, Y_{\bullet}$ , we introduce the new simplicial set  $Hom(X, Y)_{\bullet}$ . This simplicial set is called a function complex and it is the inner hom for the category of simplicial sets. We will prove various useful properties of function complexes.

Many presentations in this series are based on the book "*Simplicial Homotopy Theory*" by P.G. Goerss and J.F. Jardine.

Monday, March 9, 2015 1:30 – 2:30 pm Room 617, Wachman Hall Department of Mathematics