

Introduction to categories-III  
Sarang Sane, IITM

In this talk, we will study the category of chain complexes and motivate the reasons for this study with examples from topology and algebra. We go on to study other important categories one can create out of it, such as the homotopy category and the derived category. Time permitting, we will see that these are special cases of a general class of categories called triangulated categories, and state a basic (and hence possibly difficult) open problem related to them.

Pre-requisites :  
Familiarity with category theory topics covered in the previous talks.