Speaker: Anita Naolekar

Title: Algebraic Deformation Theory-An Introduction

Abstract:

Algebraic deformation theory deals with the interplay between perturbations of algebraic structures, and homological algebra. In this talk, we shall try to show this interplay in the case of associative algebras by showing how the perturbations of the multiplication in an associative algebra A are controlled by the Hochschild cohomology of A. We shall then try to generalize the theory to other algebraic structures, including coalgebras and bialgebras. If time permits, we shall give a categorical overview.