



The Hong Kong University of Science and Technology

Department of Mathematics

Hong Kong Geometry Colloquium

Calabi-Yau algebras and derived noncommutative Poisson structures

By

Prof. Xiaojun Chen
Sichuan University, China

Abstract

Recently, Crawley-Boevey introduced a notion of noncommutative Poisson structure for an associative algebra (viewed as a noncommutative space). It is represented by a Lie algebra on the zero-th cyclic homology of such algebra, which naturally induces a Poisson structure on the moduli space of its representations. In this talk, we generalize Crawley-Boevey's result to all cyclic homology groups, and call such structure a derived noncommutative Poisson structure. Based on a work of Van den Bergh, we show that all Koszul Calabi-Yau algebras admit a derived noncommutative Poisson structure. Many examples will be given. Joint work with Berest, Eshmatov and Ramadoss.

Date : ***Saturday, 8 February 2014***
Time : ***10:00a.m.-11:00a.m.***
Venue : ***Room 4475, Academic Building***
(near Lifts 25 & 26), HKUST

Lawson homology theory and recent developments

By

Prof. Wenchuan Hu
Sichuan University, China

Abstract

The Lawson homology group is defined by homotopy groups of the space of algebraic cycles of a fixed dimension on a complex projective variety. In this talk I will talk about Lawson homology theory, especially recent developments and problems related to the algebraic cycles theory.

Date : ***Saturday, 8 February 2014***
Time : ***11:20a.m.-12:20a.m.***
Venue : ***Room 4475, Academic Building***
(near Lifts 25 & 26), HKUST

All are welcome !

Light refreshment will be provided at Room 3493 from 11:00 am to 11:20 am