

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

GEOMETRY SEMINAR

The Hochschild and cyclic homology of Koszul Calabi-Yau algebras

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Date: February 11, 2014 (Tuesday)

Time: 4:30 – 5:30pm

Venue: Room 210, Run Run Shaw Bldg., HKU

Abstract

Calabi-Yau algebras are now being widely studied by mathematicians. In this talk we study some algebraic structures on the Hochschild and cyclic homology of Koszul Calabi-Yau algebras. It is already known that for a Koszul algebra, its Hochschild and cyclic homology groups are isomorphic to those of its Koszul dual respectively. In this talk, we show that for a Koszul Calabi-Yau algebra, these two isomorphisms are in fact isomorphisms of Batalin-Vilkovisky algebras and Lie algebras respectively. Some applications of these isomorphisms will be discussed. Joint with Eshmatov and Yang.

All are welcome