Mathematics, Statistics, and Computer Science **@ UIC**

Homotopy Algebras Seminar

The A_\infty structure of the Yoneda algebra for a complete intersection

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Abstract: Let R be the quotient of a regular local ring by a regular sequence of elements and let k be its residue field. The ordinary algebra structure on Ext^*_R(k,k) has been known for quite some time. In the generic situation its just the tensor product of a symmetric algebra and an exterior algebra. Since Ext_R^*(k,k) is the cohomology of a dga, it can be enriched to an A_\infty algebra. In this talk I describe this A_\infty structure explicitly, using the deformation theory of A_\infty algebras as the main tool.

Friday, March 20 at 1:00 PM in SEO 1227