

Front Range Algebra, Geometry and Number Theory Seminar

# Orbifold cup products and ring structures on Hochschild cohomologies

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In the talk we study the Hochschild cohomology ring of convolution algebras associated to orbifolds as well as their deformation quantizations. In the first case the ring structure is given in terms of a wedge product on twisted polyvectorfields on the inertia orbifold. After deformation quantization, the ring structure defines a product on the cohomology of the inertia orbifold. We study the relation between this product and an  $S^1$ -equivariant version of the Chen–Ruan product. In particular, we give a de Rham model for this equivariant orbifold cohomology. The talk is based on joint work with H. Posthuma, X. Tang and H.-H. Tseng

Thursday February 10th 2011

3:00-5:00 p.m.

University of Colorado

MATH 350