

THE HOCHSCHILD HOMOLOGY OF HYPERSURFACES

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ABSTRACT

Working over the polynomial ring $\mathbb{k}[x_1, \dots, x_n]$, where \mathbb{k} is a commutative ring containing \mathbb{Q} , we compute the Hochschild homology of the coordinate rings of the double cone in two and three dimensions. We show that in both cases Hochschild homology does not vanish in higher degrees.

In addition, we calculate the Hochschild homology of the coordinate ring of the Whitney umbrella using a minimal model.