1083-13-103 **Petter Andreas Bergh**, **David A. Jorgensen*** (djorgens@uta.edu) and **Steffen Oppermann**. *On products in negative cohomology for n-Calabi-Yau categories.*

We investigate the structure of the Z-graded cohomology rings of objects in n-Calabi-Yau triangulated categories. Almost by definition these cohomology rings possess a natural duality. In particular, the stable endomorphism ring of a finitely generated module over a finite dimensional symmetric k-algebra is a Z-graded k-algebra that it possesses a natural duality between its positive and negative sides. A consequence of this is that if the non-negative part of the endomorphism ring has a regular sequence of central elements of length 2, then all products between elements of negative degree are trivial. As a corollary we show this holds for the Tate-Hochschild cohomology ring of a symmetric k-algebra. We'll also show the same results hold over a commutative zero-dimensional Gorenstein ring. This is based on joint work with Petter Bergh and Steffen Oppermann. (Received August 22, 2012)