

1067-16-2020

**Christopher Lee Phan\*** (c1p020@bucknell.edu), Department of Mathematics, Bucknell University, Lewisburg, PA 17837. *Structural results for the Yoneda algebra of a connected-graded algebra*. Preliminary report.

Associated with every connected-graded algebra  $A$  is a bigraded algebra  $E(A) = Ext_A(k, k)$ , called the Yoneda algebra. The study of the connections between the structure of  $A$  and  $E(A)$  is rich and includes topics such as the Koszul condition defined by Priddy and the  $\mathcal{K}_2$  condition formulated by Cassidy and Shelton. We prove some additional results in this area, considering the case when  $A$  belongs to some classes of twisted tensor products or when  $A$  is a type of generalized Ore extension. (Received September 22, 2010)