Stable Endomorphism Rings and Universal Deformation Rings
Professor Shannon Talbott, University of Iowa

Abstract
Quivers, which are directed graphs, provide a combinatorial framework for the study of representations of algebras. We look at a special class of algebras which are defined by certain quivers and relations and for which all representations are given combinatorially. We consider special modules called string modules. In order to determine if a universal deformation ring exists, we show how the endomorphism ring of a string module can be determined as well as the stable endomorphism ring, i.e. the quotient of the endomorphism ring by the ideal of endomorphisms which factor through a projective module.