We present some conditions relating when a quotient of a path algebra by a length homogeneous ideal generated in degree d and its associated monomial algebra are d-Koszul.

We also study conditions on algebras that are quotients of path algebras where the ideal of relations can be generated by homogeneous elements of degrees 2 and d. We investigate conditions that imply minimal graded projective resolutions of simple modules are 'nice'. We also study conditions that imply the Ext-algebra of such an algebra is finitely generated.

This talk describes joint work with Eduardo Marcos.

ED GREEN, Virginia Tech

²⁻d Koszul algebras