

# The center of rings associated to directed graphs

Jonathan Brown

Kansas State University

**Abstract:** In 2005 Abrams and Aranda Pino began a program studying rings constructed from directed graphs. These rings, called Leavitt Path algebras, generalized the rings without invariant basis number introduced by Leavitt in the 1950's. Leavitt path algebras are the algebraic analogues of the graph  $C^*$ -algebras and have provided a bridge for communication between ring theorists and operator algebraists. Many of the properties of Leavitt path algebras can be inferred from properties of the graph, and for this reason provide a convenient way to construct examples of algebras with a particular set of attributes. In this talk we will explore how central elements of the algebra can be read from the graph.