

1056-46-959

Gene Abrams and **Mark Tomforde*** (tomforde@math.uh.edu). *Isomorphism and Morita equivalence of graph algebras I.*

In this talk we consider Leavitt path algebras and graph C^* -algebras, and we discuss various relationships between the algebras in these two classes. We describe how the Leavitt path algebra $L_{\mathbb{C}}(E)$ is canonically isomorphic to a dense $*$ -subalgebra of $C^*(E)$, discuss the implications of this imbedding, and examine a number of similar results for these two classes. We shall also discuss the problem of lifting and restricting isomorphisms between graph algebras, and consider two questions: (1) If $L_{\mathbb{C}}(E)$ and $L_{\mathbb{C}}(F)$ are isomorphic as rings, does it follow that $C^*(E)$ and $C^*(F)$ are isomorphic as C^* -algebras? and (2) If $L_{\mathbb{C}}(E)$ and $L_{\mathbb{C}}(F)$ are Morita equivalent as rings, does it follow that $C^*(E)$ and $C^*(F)$ are Morita equivalent as C^* -algebras? (Received September 18, 2009)