

1056-47-1165

Katie Spurrier Quertermous* (kgs5c@virginia.edu), University of Virginia, Department of Mathematics, P.O. Box 400137, Charlottesville, VA 22903-4137. *Fixed Point Composition C^* -algebras.*

Let φ be an analytic self-map of the unit disk \mathbb{D} , and let $H^2(\mathbb{D})$ denote the Hardy space of the disk. We define the composition operator C_φ on $H^2(\mathbb{D})$ by $C_\varphi f = f \circ \varphi$ for all $f \in H^2(\mathbb{D})$. In particular, we are interested in composition operators where φ is a linear-fractional map that fixes a point $\zeta \in \partial\mathbb{D}$. In this talk, we will consider the structures of unital C^* -algebras generated by collections of composition operators of this type. We will demonstrate how the structures of specific examples are related to the algebra of almost periodic functions on the real line and to a crossed product of a unital C^* -algebra by an abelian group. (Received September 21, 2009)