1127-47-233 **Brittney R. Miller*** (bmiller@coe.edu). *The Kernel of the Adjoint of a Composition Operator with Rational Symbol on the Hardy Space.*

For a rational symbol φ mapping $\mathbb{D}$ to $\mathbb{D}$, the composition operator C_φ acts on the Hardy space by $C_\varphi f = f \circ \varphi$. If φ is not univalent, then the kernel of the adjoint C_φ^* is infinite dimensional. In this talk, we will investigate functions in the kernel of C_φ^*. Using the explicit formula for the adjoint C_φ^* given by Hammond, Moorhouse, and Robbins, we will characterize the functions in the kernel of C_φ^* for a particular class of rational symbols. (Received February 04, 2017)