Soumyadip Acharyya*, acharyys@erau.edu, and Zhijian Wu, zhijian.wu@unlv.edu. Difference of two weighted composition operators on Bergman spaces.

Let \( \varphi \) be a holomorphic self-map of the open unit disc \( \mathbb{D} \) and \( u \) be a measurable (not necessarily holomorphic) complex-valued function on \( \mathbb{D} \). The linear map \( uC_{\varphi} \) on \( H(\mathbb{D}) \) defined by

\[
(uC_{\varphi})(f)(z) = u(z)(f \circ \varphi)(z), \quad f \in H(\mathbb{D}), z \in \mathbb{D},
\]

is called the weighted composition operator with weight \( u \) and symbol \( \varphi \).

The talk will begin with a brief survey of some earlier results about the difference of two unweighted composition operators, in particular their schatten - 2 membership, compactness, and, boundedness. Our main results include equivalent expressions for the Schatten - 2 norm, essential norm and operator norm of two weighted composition operators, acting from weighted Bergman spaces to \( L^p \) spaces. Insight into the techniques to solve those type of problems will be given. (Received September 05, 2016)