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Waleed K. Al-Rawashdeh*, 1300 West Park Street, Butte, MT 59701. *Generalized composition operators on Weighted Hilbert Spaces of Analytic Functions.*

Let φ be an analytic self-map of the open unit disk \mathbb{D} and g be an analytic function on \mathbb{D} . The generalized composition operator induced by the maps g and φ is defined by the integral operator

$$I_{(g,\varphi)}f(z) = \int_0^z f'(\varphi(\zeta))g(\zeta)d\zeta.$$

Given an admissible weight ω , the weighted Hilbert space \mathcal{H}_ω consists of all analytic functions f such that $\|f\|_{\mathcal{H}_\omega}^2 = |f(0)|^2 + \int_{\mathbb{D}} |f'(z)|^2 \omega(z) dA(z)$ is finite. In this talk, we characterize the boundedness and compactness of the generalized composition operators on the space \mathcal{H}_ω using the ω -Carleson measures. Moreover, we give a lower bound for the essential norm of these operators. (Received February 05, 2018)