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**Waleed Al-Rawashdeh\*** (walrawashdeh@mttech.edu), Montana Tech, 1300 West Park Street, Butte, MT 59701. *Compact Composition Operators on Weighted Hilbert Spaces.*

Let  $\varphi$  be an analytic self-map of open unit disk  $\mathbb{D}$ . A composition operator is defined as  $(C_\varphi f)(z) = f(\varphi(z))$ , for  $z \in \mathbb{D}$  and  $f$  analytic on  $\mathbb{D}$ . Given an admissible weight  $\omega$ , the weighted Hilbert space  $\mathcal{H}_\omega$  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 study composition operators acting between weighted Bergman space  $A_\alpha^2$  and the weighted Hilbert space  $\mathcal{H}_\omega$ . (Received September 15, 2015)