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Rabab Alyusof and Flavia Colonna* (fcolonna@gmu.edu), Dept. of Mathematical Sciences, George Mason University, 4400 University Drive, Fairfax, VA 22030. Weighted composition operators from Banach spaces of holomorphic functions to weighted-type Banach spaces on the unit ball

Let X be a Banach space of holomorphic functions on the unit ball \mathbb{B}_n in \mathbb{C}^n whose point-evaluation functionals are bounded. In this work, we characterize the bounded weighted composition operators from X into a weighted-type Banach space $H^{\infty}_{\mu}(\mathbb{B}_n)$, where the weight μ is an arbitrary positive continuous function on \mathbb{B}_n . We determine the norm of such operators in terms of the norm of the point-evaluation functionals. Under some restrictions on X, we characterize the compactness of such operators. Under an alternative set of conditions, we provide essential norm estimates. We apply our results to the cases when X is the Hardy space H^p , the weighted Bergman space A^p_{α} for $\alpha > -1$ and $1 \le p < \infty$, the Bloch space and the little Bloch space. We obtain precise formulas of the essential norm when p > 1. (Received August 08, 2019)