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Trieu L. Le* (trieu.le2@utoledo.edu). *Weighted composition operators on the Drury–Arveson space.*

For a cardinal d , the Drury–Arveson space H_d^2 can be identified as a reproducing kernel Hilbert space with kernel $K(z, w) = (1 - \langle z, w \rangle)^{-1}$, where z, w belong to the unit ball \mathbb{B}_d of a d -dimensional Hilbert space. Let f be in H_d^2 and φ be a holomorphic self-map of \mathbb{B}_d . The weighted composition operator $W_{f,\varphi}$ is defined on H_d^2 by $W_{f,\varphi}h = f \cdot (h \circ \varphi)$. Researchers have been interested in studying how the operator theoretic properties of $W_{f,\varphi}$ affect the function theoretic properties of f, φ and vice versa. In this talk we shall discuss when the adjoint operator $W_{f,\varphi}^*$ is a weighted composition operator, or the inverse of a weighted composition operator. Consequently, we provide characterizations for $W_{f,\varphi}$ to be self-adjoint or unitary. (Received August 29, 2013)