1023-47-1185   **Matthew A Pons*** (`map6h@virginia.edu`), University of Virginia, Department of Mathematics, Kerchof Hall, P.O. Box 400137, Charlottesville, VA 22904-4137. *Composition operators on Banach spaces of analytic functions of the unit ball.*

Let φ be an analytic map of the unit ball in $\mathbb{C}^n$ ($n \geq 1$) into itself and let $\mathcal{Y}$ be a Banach space of analytic functions on the ball. We then define the composition operator C_φ on $\mathcal{Y}$ by

$$C_\varphi f = f \circ \varphi$$

for f in $\mathcal{Y}$. In particular we are interested in the operator theoretic properties of these operators when the map φ is a linear fractional self-map of the unit ball. The class of linear fractional self-maps of the ball include the class of automorphisms of the ball and much attention is given to these. Much work has been done recently in the case when $\mathcal{Y}$ is the classical Dirichlet space of the unit disk and we extend some of these results to the weighted Dirichlet and Besov type spaces of the unit ball ($n \geq 1$). (Received September 25, 2006)