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Katherine Heller and **Barbara D. MacCluer*** (bdm3f@virginia.edu), Kerchof Hall, PO Box 400137, University of Virginia, Charlottesville, VA 22904-4137, and **Rachel J. Weir**. *Compact differences of composition operators in several variables.*

For an analytic self-map φ of a domain Ω in \mathbb{C}^N , the composition operator C_φ is defined by $C_\varphi(f) = f \circ \varphi$, for f analytic in Ω . For a pair φ, ψ of linear-fractional self-maps of the unit ball B_N in \mathbb{C}^N , $N \geq 1$, we show that the difference $C_\varphi - C_\psi$ cannot be non-trivially compact on either the Hardy space $H^2(B_N)$ or any standard weighted Bergman space $A_\alpha^2(B_N)$. Our arguments emphasize geometric properties of the maps φ and ψ . (Received September 19, 2011)