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Trieu L. Le* (trieu.le2@utoledo.edu). *Boundedness and compactness of composition operators on Segal-Bargmann spaces*. Preliminary report.

For E a Hilbert space, let $\mathcal{H}(E)$ denote the Segal-Bargmann space (also known as the Fock space) over E , which is a reproducing kernel Hilbert space with kernel $K(x, y) = \exp(\langle x, y \rangle)$ for x, y in E . If φ is a mapping on E , the composition operator C_φ is defined by $C_\varphi h = h \circ \varphi$ for $h \in \mathcal{H}(E)$ for which $h \circ \varphi$ also belongs to $\mathcal{H}(E)$. We will discuss necessary and sufficient conditions for the boundedness and compactness of C_φ . Our results generalize results obtained earlier by Carswell, MacCluer and Schuster for finite dimensional spaces E . (Received September 21, 2011)