

Meeting: 999, Nashville, Tennessee, SS 7A, Special Session on Operator Theory on Function Spaces

999-47-154 **Ruhan Zhao*** (Ruhan.Zhao@utoledo.edu), Department of Mathematics, University of Toledo, Toledo, OH 43606-3390, and **Zeljko Cuckovic** (zcuckovi@math.utoledo.edu), Department of Mathematics, University of Toledo, Toledo, OH 43606-3390. *Weighted composition operators between different weighted Bergman spaces and different Hardy spaces.*

We characterize bounded and compact weighted composition operators acting between weighted Bergman spaces and between Hardy spaces. Our results use certain integral transforms that generalize the Berezin transform. We also estimate the essential norms of these operators. As applications, we characterize bounded and compact pointwise multiplication operators between weighted Bergman spaces and estimate their essential norms. (Received August 20, 2004)