On compactness of operators acting on Bergman spaces

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Abstract: Compactness of a bounded operator T on the Bergman space A^1 can be characterized by the criteria $\lim_{|z|\to 1} \frac{||T(K_z^\alpha)||_{A^1}}{||K_z^\alpha||_{A^1}} = 0$, where the reproducing kernel $K_z^\alpha(w) = \frac{1+\alpha}{(1-\bar{x}w)^{2+\alpha}}$, $\alpha > 0$, and $||K_z^\alpha||_{A^1} \approx (1 - |z|^2)^\alpha$. The purpose of this talk is to discuss if a corresponding criteria is also valid for bounded operators on the standard Bergman space A^2.