Critical decay of singular values of compact Hankel operators on Bergman spaces

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We consider compact Hankel operators $H_{\overline{\phi}}$, with anti-analytic symbol $\overline{\phi}$, acting on Bergman spaces, and give estimates of the trace of $h(|H_{\overline{\phi}}|)$ for any convex function h. We then derive estimates of the singular values $(s_n(H_{\overline{\phi}}))_n$. For radial weights, we prove that the critical decay of $(s_n(H_{\overline{\phi}}))_n$ is attained by $(s_n(H_{\overline{z}}))_n$. Next, we give the asymptotics of $(s_n(H_{\overline{\phi}}))_n$ for some particular symbols.

This is a joint work with M. Bourass, I. Marrhich and H. Naqos.