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A note on weighted Bergman spaces and the Cesàro operator. (English) Zbl 0981.32001
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Let $A^p(dV_\alpha)$ denote the set of the functions holomorphic in the unit ball in \mathbb{C}^n , which belong to $L^p(dV_\alpha)$ where $\alpha > -1$, $0 < p < \infty$ and $dV_\alpha = (1 - |z|^2)^\alpha dV(z)$. In this paper $A^p(dV_\alpha)$ is characterized as those functions whose images under the action of a certain set of differential operators lie in $L^p(dV_\alpha)$. It is shown also that the Cesàro operator is bounded on $A^p(dV_\alpha)$.

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MSC:

32A17 Special families of functions of several complex variables
32A36 Bergman spaces of functions in several complex variables

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Keywords:

weighted Bergman spaces; Cesaro operator

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