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Pointwise estimates for the Bergman kernel and applications

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I will present a joint work with Jordi Marzo. We prove upper pointwise estimates for the Bergman kernel of the weighted Fock space of entire functions in $L^2(e^{-2\phi})$ where ϕ is a subharmonic function with $\Delta\phi$ a doubling measure. We derive estimates for the canonical solution operator to the inhomogeneous Cauchy–Riemann equation and as application we characterize the compactness of this operator in terms of the Laplacian of ϕ .