

A smoothing property of the Bergman projection

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Let $\Omega \subset\subset \mathbb{C}^n$ be a smoothly bounded, strictly pseudoconvex domain. We show that, measured in $L^2(\Omega)$, the derivatives of the output of the Bergman projection only depend on derivatives of the input in the so-called bad tangential direction. This lets us describe a family of functions on Ω , strictly larger than $C^\infty(\overline{\Omega})$, whose image under the Bergman projection is contained in $C^\infty(\overline{\Omega})$. This is joint work with J. McNeal.