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Hölder estimates for homotopy operators on strictly pseudoconvex domains with C^2 boundary

We derive a new homotopy formula for a strictly pseudoconvex domain of C^2 boundary in \mathbf{C}^n by using a method of Lieb and Range and obtain estimates in Lipschitz spaces for the homotopy operators. For $r > 1$ and $q > 0$, we obtain a $\Lambda_{r+1/2}$ solution u to $\bar{\partial}u = f$ for a $\bar{\partial}$ -closed $(0, q)$ form f of class Λ_r in the domain. We apply the estimates to obtain boundary regularities of \mathcal{D} -solutions for a domain in the Levi-flat Euclidean space.