Abstract

In this thesis, we will write down the Henkin's solutions of $\bar{\partial} u = f$ for arbitrary $\bar{\partial}$-closed $(0,1)$-form f on the open balls and shell domains in $\mathbb{C}^n$, and then proceed to find an explicit upper bound C such that the uniform estimates hold in these domains; that is, $\|u\|_\infty \leq C\|f\|_\infty$.

中文摘要

在這篇論文裡，我們將用 Henkin 的積分表現法寫出 $\bar{\partial}u = f$ 在 $\mathbb{C}^n$ 上的球域與殼域的解。除此之外，我們將估計常數 C 以滿足 $\bar{\partial}$-方程的均勻估計，即 $\|u\|_\infty \leq C\|f\|_\infty$。