

ON CANONICAL HOMOTOPY OPERATORS FOR $\bar{\partial}$ IN FOCK TYPE SPACES IN $\mathbb{C}^n$

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Abstract

We show that a certain solution operator for $\bar{\partial}$ in a space of forms square integrable against $e^{-|z|^2}$ is canonical, i.e., that it gives the minimal solution when applied to a $\bar{\partial}$ -closed form, and gives zero when applied to a form orthogonal to $\text{Ker } \bar{\partial}$.

As an application, we construct a canonical homotopy operator for $i\partial\bar{\partial}$.

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