

Weighted Composition Operators between Different Bloch-type Spaces in Polydiscs

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Abstract

Let $\phi(z) = (\phi_1(z), \dots, \phi_n(z))$ be a holomorphic self-map of \mathbb{D}^n and $\psi(z)$ a holomorphic function on \mathbb{D}^n , where \mathbb{D}^n is the unit polydiscs of \mathbb{C}^n . Let $p > 0, q > 0$, this paper gives some necessary and sufficient conditions for the weighted composition operator $W_{\psi, \phi}$ induced by ψ and ϕ to be bounded and compact between Bloch-type space $\beta_p(\mathbb{D}^n)$ and $\beta_q(\mathbb{D}^n)$.

Keywords Bloch-type space, Weighted composition operator, Composition operator.

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