

**Title:** Integral type operators between logarithmic Bloch-type space and  $F(p, q, s)$  space on the unit ball

**Author(s):** Li Zhang and Ze Hua Zhou

Let  $H(\mathbb{B}_N)$  be the space of all holomorphic functions on the unit ball  $\mathbb{B}_N$  in  $\mathbb{C}^N$ , and  $S(\mathbb{B}_N)$  the collection of all holomorphic self-maps of  $\mathbb{B}_N$ . Let  $\varphi \in S(\mathbb{B}_N)$  and  $g \in H(\mathbb{B}_N)$ , the generalized composition operator is defined by

$$C_\varphi^g(f)(z) = \int_0^1 \Re f(\varphi(tz))g(tz) \frac{dt}{t},$$

and the product of composition and integral operators is defined by

$$P_\varphi^g(f)(z) = \int_0^1 f(\varphi(tz))g(tz) \frac{dt}{t}.$$

In this paper, we characterize the boundedness and compactness of these two integral operators, acting from the logarithmic Bloch-type space to  $F(p, q, s)$  space on the unit ball  $\mathbb{B}_N$ .

**Address:**

Li Zhang  
Department of Mathematics  
Tianjin University  
Tianjin 300072  
P.R. China

**Address:**

Ze Hua Zhou  
Department of Mathematics  
Tianjin University  
Tianjin 300072  
P.R. China