

Weighted Banach spaces of holomorphic functions on the upper half-plane

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Abstract

In 2001 Bierstedt [1] asked if the weighted space of holomorphic functions $Hv_0(G)$ on the upper half-plane must have the approximation property under the conditions of Holtmanns [5]. Under these conditions she had shown that $Hv_0(G)''$ and $Hv(G)$ are isometrically isomorphic. The problem remains open in general, but in the present paper we give a positive answer for weights with two additional conditions. Actually we can even show the existence of a basis.