ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

8. Analysis

1991 MS Classification: 46E10/40, 46A32
Holtmanns, Silke and Bierstedt, Klaus D., Univ. Paderborn, Germany
An operator representation for weighted spaces of vector valued holomorphic functions

For any weighted space $HV(G)$ of holomorphic functions with a topology stronger than that of uniform convergence on the compact subsets of G and for any quasibarrelled space E we prove the topological isomorphism

$$HV(G, E'_b) = \mathcal{L}_b(E, HV(G))$$

and derive a similar, but technically more complicated isomorphism for weighted spaces of continuous functions. This should be compared with the ε-product representation for the corresponding space $HV_0(G, E)$ of holomorphic functions with o-growth conditions. We also show

$$HV_1(G_1, HV_2(G_2)) = H(V_1 \otimes V_2)(G_1 \times G_2).$$

(The talk will be given by the first-named author.)