

$$\| B(x,y) \|_k \leq C_k \| x \|_{k_0} \| y \|_{k_0} \quad (x,y \in E).$$

However, we have the following somewhat surprising result from the structure theory:

THEOREM 5.

In  $H(\mathbb{D})$  and its coordinate subspaces, every continuous, symmetric, bilinear, separately bounded function is jointly bounded. In  $C^\infty(T)$  and each of its coordinate subspaces, this statement is false.

In the light of this result, I feel quite uncertain as to the exact reason for the difference between Theorem 2 and Theorem 2'. Is the latter in some sense stronger or are the hypotheses actually equivalent? Perhaps future research will explain the matter.

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