

Hölder continuity of the pluricomplex Green function

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I will discuss the following problem of Pleśniak (1988). Let $h : U \rightarrow \mathbb{C}^{N'}$, where $U \subset \mathbb{C}^N$ is an open set, be a holomorphic map ($N, N' \in \mathbb{N}$). Assume that a compact set $\emptyset \neq K \subset \mathbb{C}^N$ has the HCP property (that is, the pluricomplex Green function V_K of K is Hölder continuous) and $\hat{K} \subset U$. Under what conditions does it happen that $h(K)$ has the HCP property?