

The following theorem of Globevnik and Stout was presented:

Let $f : \Delta \rightarrow \mathbb{B}_n$ be a proper holomorphic map from the unit disc to the unit ball in \mathbb{C}^n . Let $C(f) := \{w \in \partial\mathbb{B}_n \mid \exists z_n \in \Delta \ f(z_n) \rightarrow w\}$ be the set of cluster values of f . If $\mathcal{H}^1(C(f)) < \infty$ and the area of $f(\Delta)$ is finite then f extends continuously to the boundary.

The proof exploits a topological lemma and a result of Tsuji that under the assumptions above the length of $f(\{z \mid |z - 1| = r_n\})$ converges to zero for some sequence $r_n \searrow 0^+$.