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ON NONLINEAR RUDIN-CARLESON TYPE THEOREMS

Let $\bar{\mathbb{D}} \subset \mathbb{C}$ be the closed unit disk and $\mathbb{T} \subset \bar{\mathbb{D}}$ be the unit circle. The classical Rudin-Carleson theorem asserts that if $S \subset \mathbb{T}$ is a closed subset of Lebesgue measure zero, then for every complex continuous function f on S there exists a continuous function g on $\bar{\mathbb{D}}$ holomorphic in its interior $\mathbb{D}$ such that $g|_S = f$ and $\max_{\bar{\mathbb{D}}} |g| \leq \max_S |f|$.

In the talk, I present analogs of this interpolation theorem for continuous maps into complex manifolds.