UNIFORM APPROXIMATION BY INTERPOLATING BLASCHKE PRODUCTS

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Abstract. Let $\mathfrak{I}$ be the class of all inner functions that can be uniformly approximated on $\mathbb{D}$ by interpolating Blaschke products. It is well known that any infinite Blaschke product whose zeros lie in a cone belongs to $\mathfrak{I}$. It will be shown that any inner function u for which there exists a level set $\{|u| < \eta\}$ that can be controlled in a certain way by the zero *set* of u belongs to $\mathfrak{I}$. In particular, we will notice that $\mathfrak{I}$ contains the set of inner functions satisfying the weak embedding property; a set that appeared in recent work of Gorkin, Nikolski and the speaker on H^∞-quotient algebras.