UNIFORM APPROXIMATION BY INTERPOLATING BLASCHKE PRODUCTS

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Abstract. Let $I$ be the class of all inner functions that can be uniformly approximated on $D$ by interpolating Blaschke products. It is well known that any infinite Blaschke product whose zeros lie in a cone belongs to $I$. 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 $I$. In particular, we will notice that $I$ 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 $H^\infty$-quotient algebras.