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ON SEPARATED CARLESON SEQUENCES IN THE UNIT DISC

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Abstract: The interpolating sequences S for $H^\infty(\mathbb{D})$, the bounded holomorphic functions in the unit disc $\mathbb{D}$ of the complex plane $\mathbb{C}$, were characterized by L. Carleson using metric conditions on S. Alternatively, to characterize interpolating sequences we can use the existence in $H^\infty(\mathbb{D})$ of an infinity of functions $\{\rho_a\}_{a\in S}$, uniformly bounded in $\mathbb{D}$, the function ρ_a being 1 at the point $a \in S$ and 0 at any $b \in S \setminus \{a\}$. A. Hartmann recently proved that just one function in $H^\infty(\mathbb{D})$ was enough to characterize interpolating sequences for $H^\infty(\mathbb{D})$. In this work we use the "hard" part of Carleson's proof of the corona theorem to extend Hartmann's result and to answer a question he asked in his paper.

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