

Integral operators on H^∞

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ABSTRACT: Let g be an analytic function in the unit disk \mathbb{D} . We consider the integral operator T_g defined by

$$T_g(f)(z) = \int_0^z f(\xi)g'(\xi) d\xi$$

for all analytic functions $f : \mathbb{D} \rightarrow \mathbb{C}$. In 1977, Ch. Pommerenke got that T_g is bounded on the Hardy space H^2 if and only if g belongs to BMOA (the space of analytic functions of bounded mean oscillation). Since that year, a number of authors has studied several properties like boundedness, compactness, ... of this operator between different Banach spaces of analytic functions.

In this talk, we present some classical results about T_g and show recent advances about T_g on the space of bounded analytic functions in the unit disk H^∞ .

This is a joint work with J.A. Peláez, Ch. Pommerenke, and J. Rättyä.