

P. Vitse, **Functional calculus under the Tadmor-Ritt condition, and free interpolation by polynomials of a given degree**, *J. Funct. Anal.*, 210 (2004), 43–72.

Abstract

For Banach space operators T satisfying the Tadmor-Ritt condition $\|(zI - T)^{-1}\| \leq C|z - 1|^{-1}$, $|z| > 1$, we prove that the best possible constant $C_T(n)$ bounding the polynomial calculus for T , $\|p(T)\| \leq C_T(n) \cdot \|p\|_\infty$, $\deg(p) \leq n$, behaves (in the worst case) as $\log n$ as $n \rightarrow \infty$. This result is based on a new free (Carleson type) interpolation theorem for polynomials of a given degree.