

Teoria dos Operadores e Aplicações

On the study of the kernel of singular integral operators with non-Carleman shift

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We consider the singular integral operator with a non-Carleman shift $T = I - cUP_+$: $L_p^n(\mathbb{T}) \rightarrow L_p^n(\mathbb{T})$, $p \in (1, \infty)$, where P_+ is the Cauchy projector, U is an isometric shift operator and $c(t)$ is a continuous matrix function on the unit circle \mathbb{T} . We obtain some estimates for the dimension of the kernel of the operator T ; additionally we relate those estimates with the resolvent set of the functional operator cU .

References

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