

# SEMINAR

## Grupo de Análise Funcional e Aplicações Functional Analysis and Applications Group

### On the solvability theory of singular integral operators with non-Carleman shift

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#### Abstract

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  $cU$ .

Room Sousa Pinto  
November 26, 2024 - 17:00

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This seminar is supported in part by the Portuguese Foundation for Science and Technology (FCT - Fundação para a Ciência e a Tecnologia), through CIDMA - Center for Research and Development in Mathematics and Applications, within project UIDB/04106/2020 (<https://doi.org/10.54499/UIDB/04106/2020>).