



# SEMINAR

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

**On a singular integral operator with non-Carleman shift and conjugation**

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## Abstract

On the Hilbert space  $\widetilde{L}_2(\Gamma)$ ,  $\Gamma = \mathbb{R}, \mathbb{T}$ , the singular integral operator with non-Carleman shift and conjugation  $K = P_+ + (aI + AC)P_-$  is considered, where  $P_{\pm}$  are the Cauchy projectors,  $A = \sum_{j=0}^m a_j U^j$ ,  $a, a_j$ ,  $j = \overline{1, m}$ , are continuous functions on  $\Gamma$ ,  $U$  is the shift operator and  $C$  is the operator of complex conjugation. We obtain some estimates for the dimension of the kernel of the operator  $K$ .

**Link:** <https://videoconf-colibri.zoom.us/j/82876506689?pwd=0U56Tn10Q2VUMmZ0R1pIVS96djdnQT09>

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