

Sparse Domination and Haar Multipliers

Jean Carlo Moraes ¹

¹ Federal University of Rio Grande do Sul

Sparse domination has become a leading technique in Harmonic Analysis, it has been used to prove new bounds for a variety class of operators as Calderon-Zygmund, Bochner-Riesz type multipliers, oscillatory integrals and many others. In this talk, we will survey the main results in Weighted Theory dealing with sharp dependence on the characteristic norm of the operator. Moreover, we will present how to use Sparse Domination to improve the bounds of the Haar multipliers T_w^t , on the corresponding RH_2^d or A_2^d characteristic of the weight w , for some $t \in \mathbb{R}$.

References

- [1] A. K. LERNER, *On pointwise estimates involving sparse operators*, New York J. Math
- [2] A. K. LERNER, F. NAZAROV, *On pointwise estimates involving sparse operators*, New York J. Math.
- [3] O. BEZNOSOVA, J.C. MORAES, M. PEREYRA, *Sharp Bounds for t -Haar Multipliers on L^2* , Contemporary Mathematics
- [4] A. BARRON, J. CONDE-ALONSO, Y.OU, G. REY, *Sparse Domination and the Strong Maximal function*, Ad. Math.