

Tuesday, October 22nd, 17:00-18:00

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QUANTITATIVE C_p ESTIMATES FOR SINGULAR INTEGRALS

C_p weights were introduced by B. Muckenhoupt and later considered by E. Sawyer as a step to characterize the weights for which the Hilbert transform is bounded by the Hardy-Littlewood maximal operator in the weighted norm.

In this talk, we introduce a quantitative constant to control the “size” of the weight, which we use to quantify known bounds for Calderón-Zygmund operators and give a quantitative reverse Hölder inequality. Finally, we obtain new bounds for rough homogeneous singular integral operators.

Joint work with Kangwei Li, Luz Roncal and Olli Tapiola.