

WEIGHTED INEQUALITIES AND DYADIC HARMONIC ANALYSIS

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Abstract

We survey the recent solution of the so-called A_2 conjecture, all Calderón-Zygmund singular integral operators are bounded on $L^2(w)$ with a bound that depends linearly on the A_2 characteristic of the weight w , as well as corresponding results for commutators. We highlight the interplay of dyadic harmonic analysis in the solution of the A_2 conjecture, especially Hytönen's representation theorem for Calderón-Zygmund singular integral operators in terms of Haar shift operators.