

WEIGHTED INEQUALITIES FOR MAXIMAL OPERATORS

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We shall discuss the basic features of the theory of weighted inequalities for the Hardy-Littlewood maximal operator. Although the structural properties of the A_p weights were obtained more than thirty years ago, recent approaches are available for most of the classical results. The modern theory deals also with quantitative weighted inequalities in which bounds are given in terms of the constant of the weight. We shall obtain some of these sharp bounds. The increasing presence of dyadic harmonic analysis in the study of quantitative weighted inequalities will be a good reason to work in the dyadic setting.

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