ESTIMATES FOR MAXIMAL FOURIER MULTIPLIER OPERATORS ON $\mathbb{R}^2$ VIA SQUARE FUNCTIONS

SHUICHI SATO

Abstract. We consider certain Littlewood-Paley square functions on $\mathbb{R}^2$ and prove sharp estimates for them, from which we can deduce L^p boundedness of maximal functions defined by Fourier multipliers of Bochner-Riesz type on $\mathbb{R}^2$. This is a generalization of a result due to A. Carbery 1983.

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